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November 6, 2015 **COPY**

The Honorable Jocelyn Boyd
Chief Clerk and Administrator
Public Service Commission of South Carolina
101 Executive Center Drive
Columbia, South Carolina 29201

Posted: 200
Dept: SA
Date: 11/9/15
Time: 4:12

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2015 NOV - 6 PM 1:01
SC PUBLIC SERVICE
COMMISSION

Re: Quarterly Report of SCE&G Concerning Construction of V.C. Summer Nuclear Station Units 2 and 3

Dear Ms. Boyd:

Enclosed please find informational copies of South Carolina Electric and Gas Company's (the "Company" or "SCE&G") Quarterly Report (the "Report") for the period ending September 30, 2015, related to the construction of V.C. Summer Nuclear Stations Units 2 and 3 (the "Units"). This Report is being filed with the South Carolina Office of Regulatory Staff ("ORS") pursuant to the Base Load Review Act, S.C. Code Ann. § 58-33-277 (Supp. 2014) and the provisions of Order No. 2009-104(A) of the Public Service Commission of South Carolina (the "Commission").

Because this Report contains certain commercially sensitive information, SCE&G is filing both redacted (Public) and unredacted (Confidential) versions of this Report with the Commission and with ORS. For your convenience, we are providing you with ten (10) copies of the Public version of this Report. SCE&G is also providing one (1) copy of the Confidential version of this Report and is hereby petitioning the Commission to enter a confidentiality order protecting the commercially sensitive information contained therein from disclosure, as set forth below.

The Confidential version of this Report contains confidential information related to the pricing and pricing terms of the Engineering, Procurement and Construction Agreement (the "EPC Contract") between SCE&G and a consortium consisting of Westinghouse Electric Company, LLC and Chicago Bridge & Iron, formerly the Shaw Group, (collectively, the "Contractor"). The EPC Contract contains confidentiality provisions that require SCE&G to protect proprietary information that the Contractor believes to constitute trade secrets and to be commercially sensitive. The Contractor has requested that SCE&G maintain the confidentiality of certain information contained in **Appendix 2** and **Appendix 3**. This confidential information has been redacted from the Public Version of these appendices.

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SCE&G looks forward to working with the ORS in its review and audit of this information. If you have any questions regarding these matters, please advise.

Sincerely,

WOMBLE CARLYLE SANDRIDGE & RICE
A Limited Liability Partnership



Belton T. Zeigler
Partner

cc: The Honorable Jocelyn Boyd
Shannon Bowyer Hudson, Esquire
K. Chard Burgess, Associate General Counsel

V.C. Summer Nuclear Station Units 2 & 3

**Quarterly Report to the South Carolina Office of Regulatory Staff
Submitted by South Carolina Electric & Gas Company
Pursuant to Public Service Commission Order No. 2009-104(A)**

Quarter Ending September 30, 2015

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I. Introduction and Summary**A. Introduction**

This quarterly report is submitted by South Carolina Electric & Gas Company (SCE&G or the Company) to the Public Service Commission of South Carolina (the Commission) and the South Carolina Office of Regulatory Staff (ORS). It is submitted in satisfaction of the requirements of S.C. Code Ann. § 58-33-277 (Supp. 2014) and the terms of Commission Order No. 2009-104(A). This report provides updated information concerning the status of the construction of V.C. Summer Nuclear Station (VCSNS) Units 2 & 3 (the Units) and provides the current capital cost forecasts and construction schedules for the Units as of the close of the quarter. All amounts set forth in this Quarterly Report are based on SCE&G's existing 55% interest, except where expressly stated to be based upon 100% of the cost.

In Order No. 2015-661 dated September 10, 2015, the Commission approved updated construction and capital cost schedules for the Units. The current schedules and forecasts presented in this report are compared against those approved in Order No. 2015-661.

B. October 2015 Settlement

On October 27, 2015, the EPC Contract was amended to reflect a settlement reached by SCE&G and Santee Cooper with the Consortium (the October 2015 EPC Amendment). The October 2015 EPC Amendment will become effective when Westinghouse Electric Company (WEC) completes its acquisition of the stock of CB&I Stone & Webster, Inc. (Stone & Webster) from CB&I but will lapse if the acquisition is not completed by March 31, 2016. The principal provisions of the October 2015 EPC Amendment include the following:

- 1. Resolution of Current Disputes:** Substantially all of the outstanding EPC Contract disputes will be resolved in exchange for an increase of \$165 million in the fixed component of the EPC Contract and a credit to the target component of the contract price of approximately \$27 million.

SCE&G will make payment to WEC in twelve equal monthly installments beginning five days after the effective date of the October 2015 EPC Amendment. This does not add to the amounts discussed in paragraphs 13 or 14 below as there is a true up under either alternative selected.

2. **Substantial Completion Dates:** The guaranteed substantial completion dates (GSCDs) of the Units will be revised as between the parties to August 31, 2019 and 2020.
3. **New Liquidated Damages Provisions:** New provisions will govern delay-related liquidated damages and will cap liquidated damages at approximately \$509 million in aggregate for both Units. For reporting purposes, this amount includes the amount that WEC is required to pay SCE&G if the Units do not qualify for Federal Production Tax Credits as described in paragraph 4 below. The current maximum is \$86 million.
4. **Federal Production Tax Credit Completion Bonuses:** The Consortium will earn a completion bonus for each Unit that is completed in time to qualify for Federal Production Tax Credits for new nuclear construction. The completion bonus is approximately \$151 million per unit. If SCE&G does not qualify for Federal Production Tax Credits, then WEC will pay SCE&G \$137,500,000 per unit. Also, a bonus for megawatts in excess of the contractual amount from the existing EPC is eliminated.
5. **Consortium Membership:** Stone & Webster will continue to be a member of the Consortium as a subsidiary of WEC. However, WEC intends to engage Fluor Corporation of Greenville, South Carolina, or one or more of its affiliates, as a construction manager for the project.
6. **Parental Guarantees:** WEC's parent company, Toshiba Corporation, will reaffirm its guaranty of WEC's payment obligations under the EPC Contract. WEC's payment obligations are joint and several obligations with Stone & Webster. SCE&G and Santee Cooper will waive and cancel CB&I's parent company guaranty with respect to the project.
7. **New Milestone Payment Schedule:** The parties will develop a revised construction milestone payment schedule. This eliminates the contentious progress payment schedule in the existing EPC. While the parties are developing the revised construction milestone payment schedule, SCE&G will make payments of \$55,000,000 per month for five months following the effective date of the October 2015 EPC Amendment. Thereafter, construction milestone payments will be based on the revised construction milestone payment schedule.

8. **Future Change Orders:** The Change in Law provisions of the EPC Contract will be amended to include language designed to reduce the likelihood of future commercial disputes. The current Change in Law provisions have been the basis of a number of disputed claims by WEC/CB&I.
9. **Design Control Document Revision 19 (DCD 19):** The amended EPC Contract will expressly state that the project scope includes providing Units that meet the standards of the NRC-approved design contained in DCD-19. This has been a basis of disputed claims between the parties.
10. **No Interim Lawsuits:** The amended EPC Contract would eliminate any requirement or ability for the parties to sue each other before substantial completion of the project.
11. **Interim Dispute Resolution Board:** A dispute resolution board and process will be created for resolving commercial claims and disputes.
12. **Equipment Warranties:** Equipment warranties have been extended to two years past the GSCDs.
13. **The Gross Construction Cost Increase:** SCE&G's gross construction costs are currently projected to increase by approximately \$286 million over the \$6.8 billion approved by the Commission in September 2015, and will bring the projected total gross construction cost of the project (including escalation and AFUDC) to approximately \$7.1 billion.
14. **Fixed Price Option:** SCE&G will have until November 1, 2016, to provide notice that they intend to exercise, subject to Commission approval, an irrevocable option to amend the EPC Contract to fix the cost for the entire scope of work on the project after June 30, 2015, at approximately \$3.345 billion. This fixed amount excludes a limited amount of work within the time and materials component of the contract price. Exercise of the option is subject to regulatory approvals. The option cannot be exercised until after the effective date of the October 2015 EPC Amendment. If the option is exercised:
 - a. The aggregate delay-related liquidated damages amount would be capped at approximately \$186 million per Unit,
 - b. The completion bonus amounts would be reduced to \$83 million per Unit,
 - c. Payments made by SCE&G pursuant to paragraphs 1 and 7 above will be deducted from the total project cost, and

- d. SCE&G's gross construction costs would currently be projected to increase by approximately \$774 million over the amount approved in Order No. 2015-661.

The costs and revised substantial completion dates associated with the October 2015 EPC Amendment will only become binding upon the effective date of that amendment. They are not reflected in the schedules provided in this Quarterly Report.

C. Structure of Report and Appendices

The current reporting period is the quarter ending September 30, 2015. The report is divided into the following sections:

- Section I: Introduction and Summary;
- Section II: Progress of Construction of the Units;
- Section III: Anticipated Construction Schedules;
- Section IV: Schedules of the Capital Costs Incurred Including Updates to the Information Required by S.C. Code Ann. § 58-33-270(B)(6) (the Inflation Indices);
- Section V: Updated Schedule of Anticipated Capital Costs; and
- Section VI: Conclusion.

Appendices 1, 2, and 4 to this report contain detailed financial, milestone and other information updating the schedules approved by the Commission in Order No. 2015-661. For reference purposes, **Appendix 3** provides a copy of the capital cost schedule for the project as approved in Order No. 2015-661. **Appendix 5** provides a list of the License Amendment Requests (LARs) filed by SCE&G with the Nuclear Regulatory Commission (NRC).

A confidential and a public version of this report and its attachments are being provided. Unless otherwise specified, all cost information reflects SCE&G's 55% share of the project's cost in 2007 dollars. Attached to the end of the report is a glossary of acronyms and defined terms used.

D. Construction Schedule and Milestones

Milestones. There are 146 specific BLRA milestones for reporting purposes. As of September 30, 2015, 109 milestones have been completed. Of the remaining milestones, 23 milestones have been delayed by between one and seven months and one has been accelerated.

Construction Costs and Cost Forecasts. SCE&G anticipates that by December 31, 2015, the Company will have spent approximately \$285 million less than it originally planned to spend as forecasted in the capital cost schedule approved in Order No. 2015-661. The present cash flow forecast indicates that the Company will be able to complete the Units for \$5.2 billion in 2007 dollars, which is the amount approved in Order No. 2015-661. That amount, however, will increase as described in Section I.B if the October 2015 EPC Amendment becomes effective.

Cost Comparisons. In Order No. 2009-104(A), the Commission recognized that forecasts of Allowance for Funds Used During Construction (AFUDC) and escalation would vary over the course of the project and required those forecasts to be updated with each quarterly report. Escalation indices were issued in May 2015 for the period of July through December 2014 and have been used in forecasting the construction costs for the project that are presented here.

Chart A below compares the current capital cost forecast to the forecast presented in the last quarterly report. This chart shows an increase in Gross Construction Costs of \$1.5 million over the life of the project. With each quarterly update, a quarter that had been subject to the five-year escalation rate becomes subject to the one-year rate. The figures reported on **Chart A** also include the effect of calculating escalation on an updated cash flow projection for the project.

Chart A: Reconciliation of Capital Cost (\$000)

<u>Forecast Item</u>	<u>Projected @ 09/30/15 (Five-Year Average Escalation Rates)</u>	<u>Projected @ 06/30/15 (Five-Year Average Escalation Rates)</u>	<u>Change</u>
Gross Construction	\$6,855,784	\$6,854,304	\$1,480
Less: AFUDC	\$280,680	\$285,477	(\$4,797)
Total Project Cash Flow	\$6,575,104	\$6,568,827	\$6,277
Less: Escalation	\$1,328,466	\$1,322,189	\$6,277
Capital Cost, 2007 Dollars	\$5,246,638	\$5,246,638	\$0

Chart B compares the current capital cost forecast to the forecast on which the Commission relied in adopting Order No. 2015-661. Chart B shows that the forecasted capital cost of the Units in 2007 dollars has remained at \$5.247 billion. Due to schedule delay, changes in forecasted escalation and AFUDC (see Section I.F. below) the cost of the plant in future dollars has increased by approximately \$28.9 million since Order No. 2015-661 was issued.

Chart B: Reconciliation of Capital Cost (\$000)

<u>Forecast Item</u>	<u>Projected @ 09/30/2015 (Five- Year Average Escalation Rates)</u>	<u>As Forecasted and Approved In Order No. 2015-661</u>	<u>Change</u>
Gross Construction	\$6,855,784	\$6,826,914	\$28,870
Less: AFUDC	\$280,680	\$279,790	\$890
Total Project Cash Flow	\$6,575,104	\$6,547,124	\$27,980
Less: Escalation	\$1,328,466	\$1,300,486	\$27,980
Capital Cost, 2007 Dollars	\$5,246,638	\$5,246,638	\$0

Chart C below shows the current forecast of the cost of the Units compared to the cost forecasts underlying the initial BLRA order, which was issued by the Commission in 2009, and the update orders that the Commission issued subsequently. The decline in capital cost forecasts in 2007 dollars between Order No. 2010-12 and 2011-345 reflects the removal of Owner's contingency amounts from the forecasts as required by the opinion of the Supreme Court of South Carolina in *South Carolina Energy Users Comm. v. South Carolina Pub. Serv. Comm'n*, 388 S.C. 486, 697 S.E.2d 587 (2010). This chart shows that the cost of the project in 2007 dollars has increased by \$712 million since the initial forecasts and the cost of the project in future dollars is approximately \$543 million above the initial forecast.

Chart C: Summary of Nuclear Filings (billions of \$)

<u>Forecast Item</u>	<u>Order No.</u> <u>2009-</u> <u>104(A)</u>	<u>Order</u> <u>No.</u> <u>2010-12</u>	<u>Order</u> <u>No.</u> <u>2011-345</u>	<u>Order</u> <u>No. 2012-</u> <u>884</u>	<u>Order</u> <u>No. 2015-</u> <u>661</u>	<u>Projected</u> <u>@</u> <u>09/30/2015</u>
Capital Cost, 2007 Dollars	\$4.535	\$4.535	\$4.270	\$4.548	\$5.247	\$5.247
Escalation	\$1.514	\$2.025	\$1.261	\$0.968	\$1.300	\$1.328
Total Project Cash Flow	\$6.049	\$6.560	\$5.531	\$5.517	\$6.547	\$6.575
AFUDC	\$0.264	\$0.316	\$0.256	\$0.238	\$0.280	\$0.281
Gross Construction	\$6.313	\$6.875	\$5.787	\$5.755	\$6.827	\$6.856

E. Escalation Rates

As provided in Order No. 2009-104(A), the most current one-year inflation indices are used to escalate costs occurring in the twelve-month period after the date of each quarterly report. The most current escalation indices are found in the Handy-Whitman January 2015 update that was issued in May 2015 and reports data for the period July to December 2014. Those rates are reflected in this report. The approved capital cost targets have been adjusted to reflect the currently reported historical escalation rates.

As shown on **Appendix 4**, utility construction cost escalation rates were at historically high levels during the period 2005-2008 and have since dropped. Current escalation rates are shown below on **Chart D**. When compared to the previous Handy-Whitman release, the most recent update shows an upward trend in the one-year average rates and a downward trend in the five-year average rates.

Chart D: Handy-Whitman Escalation Rates

<u>Escalation Rate Comparison</u>		
	Jan-June 2014	July-Dec 2014
<u>HW All Steam Index:</u>		
One-Year Rate	2.52%	3.17%
Five-Year Average	3.21%	2.94%
Ten-Year Average	4.35%	4.08%
<u>HW All Steam/Nuclear Index:</u>		
One-Year Rate	2.52%	3.17%
Five-Year Average	3.21%	2.95%
Ten-Year Average	4.38%	4.10%
<u>HW All Transmission Plant Index:</u>		
One-Year Rate	1.68%	2.52%
Five-Year Average	2.63%	1.88%
Ten-Year Average	4.05%	3.81%

F. AFUDC

Consistent with Order No. 2009-104(A), SCE&G computes AFUDC based on the Federal Energy Regulatory Commission (FERC) approved methodology as applied to the balance of Construction Work in Progress (CWIP) that is outstanding between rate adjustments. SCE&G's projected AFUDC rate is currently 5.49%, compared to the rate of 5.68% that applied when Order No. 2015-661 was issued.

G. Compliance with the Commission-Approved Cumulative Project Cash Flow Target

The current Cumulative Project Cash Flow target for the project was adopted by the Commission in Order No. 2015-661. In Order No. 2009-104(A), the Commission provided that the applicable Cumulative Project Cash Flow target would be adjusted with each quarterly report to reflect updated escalation data.

Appendix 2 provides the Commission-approved Cumulative Project Cash Flow target updated for current escalation data. The cash flow targets through December 2014 have been updated to reflect actual escalation rates. The cash flow targets for the first quarter of 2015 and beyond have been updated based on the most recently available

inflation indices, which for purposes of this report, are the indices provided in May 2015 that report data for the period July through December 2014. When final actual indices for 2015 become available, the cash flow data for 2015 will be revised to reflect the actual escalation rates.

Appendix 2 compares the approved Cumulative Project Cash Flow target to the current cumulative cash flow schedules for the project, which include actual costs where available and SCE&G's working forecasts of annual cash flows for future years.

II. Progress of Construction of the Units

A. Construction

The project continues to maintain an excellent safety record that exceeds industry expectations for projects of comparable size. While certain aspects of the work present challenges to the completion schedule, overall progress continues with approximately 3,500 WEC/CB&I personnel and subcontractor workers on site daily.

Shield Building construction remains a principal focus area for SCE&G's oversight of the project. The primary critical path for both Unit 2 and Unit 3 is the fabrication of the Shield Building panels supplied by Newport News Industrial (NNI), fabrication of the Air Inlet and Tension Rings and completion of Shield Building construction. The current schedule for production of the Shield Building panels will require remediation to support the current substantial completion dates. A fabrication schedule for the Air Inlet and Tension Rings is being prepared.

WEC/CB&I reported that during the period, NNI began work on Shield Building panels in a second facility in the Newport News area. Discussion continues between WEC/CB&I and NNI concerning mitigation options for the Shield Building panels. These discussions include the possible expansion of the manufacturing facilities at NNI to allow additional Shield Building panels to be fabricated by NNI in parallel. SCE&G is awaiting confirmation that the Shield Building panel mitigation plan remains viable and an indication of the anticipated impact of the mitigation plan on the schedule.

The Consortium is preparing a revised critical path for the project to reflect current schedule information and mitigation plans.

As to Unit 2, WEC/CB&I recently informed SCE&G that the critical path for the Shield Building now runs through receipt of required Shield Building panels and construction of the east side of the Shield Building, where it connects to the Auxiliary Building, rather than the west side of the Shield Building which was the critical path previously. If unmitigated, this shift in critical path will increase the potential for delay in the completion of Unit 2 and Unit 3. However, pending review of mitigation options, no change in the projected commercial operations date for Unit 2 has been proposed.

The secondary critical path for Unit 3 construction includes the successful assembly and setting in place of the CA01 modules, and the secondary critical paths for both Units' construction includes the construction of the Annex Buildings to support energizing of the Units for systems testing.

During the period, WEC/CB&I initiated a new Project Management Organization (PMO) to provide a centralized location and project team on site to coordinate all work activities. The PMO's leaders are instituting new approaches to align and focus resources and activities and to organize work at the site.

SCE&G continues to monitor WEC/CB&I's labor productivity. Labor productivity continues to be a major challenge for the project. WEC/CB&I is analyzing the factors impeding productivity and is reporting on its efforts to resolve this issue. This is a focus area for the project.

1. Unit 2 Inside-Containment Vessel (CV) Construction

During the period, the Unit 2 CA01 module was successfully lifted and set in place within the CV. Module CA01 comprises the compartments for steam generators, the pressurizer and a major part of the refueling canal.

Preparations are being completed to place Layer 5 West concrete within the Unit 2 CV. Once this concrete layer is placed and cured, Module CA02 can be lifted and set in place within the CV. Module CA02 forms part of the in-containment refueling water storage tank and pressurizer cubicle wall and is substantially complete.

Realignment work is nearing completion on the section of the north wall of the Unit 2 CA20 module that lost alignment during lifting of the module. Preparations are underway for the placement of concrete within the walls of that module which should occur shortly after the close of the period. Installation of the blocks that anchor the Unit 2 CA20 module to its concrete foundation is substantially complete.

2. Unit 2 Containment Vessel (CV)

Welding of attachment plates for the Unit 2 CV Ring 2 is substantially complete. Final completion of that ring has been impacted by delays in the delivery of platforms to support equipment and walkways. These platforms must be welded onto the ring before it is lifted and set in place and are being fabricated off-site by Paxton & Vierling Steel Company of Carter Lake, Iowa.

The welding of the panels comprising Unit 2 CV Ring 3 is complete and work is proceeding on fittings, attachment plates and other requirements. Welding and assembly of the Unit 2 CV Top Head, which closes the top of the CV, is

approximately 65% complete. Acceptance rates based on the Radiographic Testing (RT) of welds on the Units 2 and 3 CV Rings and Top Head remain above 99%.

3. Unit 2 Shield Building Construction

The Reinforced Concrete to Steel Component (RC/SC) panels that form the transition between the Shield Building and its concrete foundation (Shield Building Course 1) have been installed on their concrete foundations in the Nuclear Island (NI) and welded in place.

Shield Building Courses 2 through 6, each numbering 12 panels, have been successfully welded together in pairs in preparation for being lifted and set in place on the RC/SC ring.

At the close of the period, WEC/CB&I had received 86 of 167 Unit 2 Shield Building panels from NNI.

4. Unit 2 Auxiliary and Annex Building Construction

During the period, concrete was placed in the Unit 2 CA22 module to form the floor of a large section of the Auxiliary Building. Backfilling is complete around the Auxiliary Building and preparations are underway for the placing of the mud mat for the adjacent Auxiliary Building Annex.

The concrete floors for all six battery rooms in the Auxiliary Building have been placed. Beam and deck installation continued in the North half of the Auxiliary Building.

WEC/CB&I has determined that a LAR will be required to resolve issues related to securing the steam and feed water piping penetrations in Wall 11 of the Auxiliary Building from possible tornado damage. WEC/CB&I is evaluating engineering options to resolve this issue.

5. Unit 2 Turbine Building

The placement of concrete at the 100 foot elevation around the exterior of the Turbine Building is complete. Weld-out and bolt-up of structural steel, decking, and stairways for the Unit 2 Turbine Building continues. Rebar, electrical embeds and electrical grounding are being installed in preparation for placing concrete for the Turbine Pedestal. This concrete placement is currently scheduled for late in the fourth quarter of 2015 reflecting the technical and engineering challenges involved in a single concrete pour of that complexity and thickness.

6. Unit 3 Nuclear Island (NI)

The concrete for Layer C which forms the base for the Unit 3 Shield Building was successfully placed. Fabrication and inspection of Modules CB65 and CB66, which form the Reactor Vessel (RV) Coolant Tank and the associated drainage canal, were completed and those modules were lifted and set within the CV.

7. Unit 3 Containment Vessel (CV) Fabrication

Fabrication of the Unit 3 CV Ring 2 is complete. Welding of the Unit 3 Ring 3 panels is complete and welding of attachment plates is underway. Fabrication of the Unit 3 CV Top Head is approximately 50% complete.

8. Unit 3 Auxiliary and Annex Buildings

Placement of walls for the Unit 3 Auxiliary building is on-going and Mechanical Module KB13, which comprises the Waste Drain System (WRS) Sump Pump, was set in place during the period.

9. Unit 3 Turbine Building

The North half of the Unit 3 Turbine Building basemat was placed during the period, completing the basemat for that building. Staging, erection and bolt-up of Structural Steel Module CH81A for the Unit 3 Turbine Building continues. Weld-up of the Unit 3 Lower Condenser internals continues outside the Turbine Building footprint.

10. Cooling Towers

Cooling Towers 2A, 3A and 3B are substantially complete. Cooling Tower 2B is 50% complete. Electrical support structures and equipment are being installed for the Unit 2 and Unit 3 Pump Basins.

11. Unit 2 High-Side Switchyard

Walls for all nine bays in the Unit 2 High-Side Switchyard are complete.

12. Unit 2-3 Switchyard

Investigations concerning the root cause of certain capacitor failures in Unit 2-3 Switchyard were completed and a root cause analysis was being prepared at the close of the period.

13. Offsite Water System (OWS)

OWS facility is complete and is undergoing start-up testing.

14. Workforce

Currently, approximately 3,500 WEC/CB&I personnel and subcontractor personnel are employed on site. Approximately 57% of these jobs are held by South Carolina residents.

B. Equipment and Fabrication

Approximately 85% of the Unit 2 major equipment and 70% of Unit 3 major equipment have been delivered to the project. This amounts to approximately 77% of all major equipment for the project. During this period, progress continued with integrating the equipment into the project. Storage of equipment is an issue which the Consortium is addressing in part by securing additional warehouse facilities off-site.

1. Unit 3 Reactor Vessel

The Unit 3 Reactor Vessel has been delivered to the site. The Reactor Vessel Closure Head is in the process of being shipped to the site.

2. Unit 3 Reactor Vessel Integrated Head Package

The Unit 3 Reactor Vessel Integrated Head Package has been delivered to the site.

3. Steam Generators

During the period, Unit 3 Steam Generator 3B successfully completed hydrostatic testing after remediation of issues identified during initial testing. The Reactor Coolant Pump (RCP) casing is now being welded to the unit. Unit 3 Steam Generator 3A is nearing completion with no issues noted. The Unit 2 Steam Generators are in storage onsite awaiting installation.

4. Reactor Coolant Pumps (RCPs)

Engineering and endurance testing of the RCPs has been completed. Post-test inspections identified an anomaly with the pump impeller. Modifications are being made to the RCP impeller to resolve the issue. The current delivery schedule for the RCPs supports construction need dates. Nevertheless, this remains a focus area for the project.

5. Pressurizers

During the period, the Unit 3 Pressurizer was delivered to the site.

6. Passive Residual Heat Removal (PRHR) Heat Exchangers

Supplemental Restraint Bars are being installed in the Unit 2 and Unit 3 PRHR Heat Exchangers at Mangiarotti's facilities in Italy. These restraint bars will provide additional support for internal components of the Units and are intended to improve their durability and extend their service life. Progress is proceeding as expected and the equipment will be shipped to the site after installation of the restraint bars.

7. Reactor Coolant Loop (RCL) Piping

Carolina Energy Solutions in Rock Hill, South Carolina completed work on the Unit 3 RCL Hot and Cold Leg piping segments. The piping has been prepared for shipping and will be delivered when a storage location is identified.

8. Squib Valves

Equipment Qualification testing for Squib Valves has concluded and final reports are due to be completed by the fourth quarter 2015. Initial indications from the testing are positive. Squib valve manufacturing is proceeding in support of the current construction schedule.

9. Transformers

Unit 3 Step-Up Transformers are in transit and expected to arrive at the site during the fourth quarter 2015. The Unit 3 transformers are being dedicated to Unit 2 so that they can be installed directly in the Unit 2 transformer bays when they arrive on the site. The Unit 2 transformers are in storage onsite and will be installed in the Unit 3 transformer bays when those transformer bays are completed.

10. Information Technology

Site Fiber Optic System. Additional runs of fiber are being installed to meet location-specific requests as site development progresses.

Configuration Management Information System (CMIS). During the period, the first deliverable for CMIS was completed. That deliverable was the module for routing, review and approval of plant operating procedures. In addition, SCE&G is integrating all plant procedures into its FileNet system which will house these records after they are drafted and approved through the CMIS system. CMIS is also being configured (a) to support the delivery of Engineering

Documents from WEC/CB&I to SCE&G, (b) to support the process by which WEC/CB&I will turn over other data and documents related to the Units to SCE&G, and (c) to accept and house the Master Equipment List (MEL) for the Units. The MEL will be used to support the Computerized Maintenance Management System (CMMS) which will be the principal work management system for the Units.

Work Management System (WMS). During the period, SCE&G continued integrated testing of the major software modules for the WMS. As module testing progresses, issues related to the performance of system software and hardware are being identified and addressed.

Handover and Turnover of Proprietary Information. During the period, WEC/CB&I indicated that they are reassessing their approach to the handover and turnover of proprietary information to SCE&G. SCE&G is awaiting the conclusion of this reassessment to proceed with the work on the handover and turnover project.

11. Module and Shield Building Panel Fabrication and Assembly

Challenges related to fabrication of submodules continue to be a focus area of the project.

Module Production Schedule. As indicated in Section II.A, the fabrication and delivery of Shield Building panels and structural submodules for the Unit 3 CA01 module are critical path items for the project. Accordingly, production of these panels and submodules, and other structural and mechanical modules, remains a very important focus area for the project. SCE&G maintains a presence on site at CB&I-LC to monitor activities there and interact with CB&I-LC leadership on a regular basis. During the period, SCE&G has added an additional engineer in Lake Charles. In addition to its other Quality Assurance/Quality Control (QA/QC) resources, SCE&G also maintains an inspector on site at NNI, MetalTek-SMCI Division (SMCI), and Oregon Iron Works/Greenberry.

During the period, SCE&G learned that work to incorporate certain design changes to submodules being constructed at CB&I-LC had been delayed due to a commercial dispute between CB&I and WEC concerning responsibility for the cost of the changes. SCE&G has responded immediately and directly to WEC/CB&I and this issue is now resolved.

As discussed in Section II.A above, mitigation is required for NNI's production of Shield Building panels to support the current construction schedule. WEC/CB&I and NNI have developed a mitigation strategy to increase the rate of

Shield Building panel production by increasing the fabrication capabilities at the NNI site. SCE&G is awaiting confirmation from WEC/CB&I that this mitigation strategy remains viable. WEC/CB&I is preparing an updated integrated construction schedule to take into account current schedule information and mitigation plans.

Unit 2 Submodules. Fabrication of the Unit 2 CA02 module is substantially complete. In the second quarter of 2015 WEC/CB&I decided that parts and materials for future Unit 2 CA03 submodules will be shipped from SMCI to the Jenkinsville site in kit form where they will be assembled and welded together by CB&I personnel. The four Unit 2 CA03 submodules fabricated and assembled at SMCI-Lakeland have been received onsite. Seven of the kits to be assembled on-site have also been received, resulting in a total of 11 of the 17 panels or panel kits comprising the Unit 2 CA03 module onsite.

Unit 2 and Unit 3 Air Inlet and Tension Rings. During the period, the Consortium informed SCE&G of its decision to source fabrication of the Shield Building Air Inlet and Tension Ring panels for both Units with CB&I-LC. The Air Inlet and Tension Rings are located at the top of the vertical wall of the Shield Building and are the most complicated parts of that Shield Building structure. CB&I-LC is preparing a fabrication schedule for these panels. The October 2015 EPC amendment discussed in I.B. above could have an impact on this sourcing decision.

Unit 3 Submodules. Work continues on the Unit 3 CA20 submodules at Oregon Iron Works and CB&I-LC facilities. Forty-one of 72 submodules for Unit 3 CA20 have been received on site and of them eleven have been upended and set in place in the Module Assembly Building (MAB) for welding and fabrication.

Six of 47 submodules for the Unit 3 CA01 module have been received onsite from the Toshiba & IHI Corporation facilities in Japan. Two of these submodules have been upended and set in place in the MAB for welding and fabrication.

The production schedule to date of Unit 3 CA01 and CA20 submodules by Toshiba, IHI Corporation, Oregon Iron Works and CB&I-LC does not support the construction schedule for the Units. WEC/CB&I is formulating plans with these vendors to mitigate these potential schedule delays.

Four of eight Unit 3 CA05 submodules have been received onsite from CB&I-LC. Of these, two have been upended and set in place in the MAB for welding and fabrication.

Mechanical Modules. During the period, CB&I stopped production of mechanical modules at the CB&I-Island Park facilities in Beaumont, Texas and transferred production of these modules to CB&I-LC. The reason for doing so was the inadequate rate of production at the Island Park facility. To accelerate production, CB&I-LC continues to fabricate higher-priority Unit 2 mechanical modules on site and to assemble first floor Auxiliary Building mechanical modules there.

Shield Building. Eighty-six out of the 167 panels which will comprise the steel walls of the Unit 2 Shield Building were received on site from NNI. Twenty-three of the Unit 3 Shield Building panels are on site. Issues related to meeting targeted tolerances during fabrication and racking during shipping, which were reported in the prior quarter, have been resolved.

Conclusion. Senior management from both SCE&G and WEC/CB&I continue to monitor the fabrication and delivery process related to submodules and panels. SCE&G maintains permanent resident inspectors at the CB&I-LC facility, the SMCI facility, and the NNI facility. The Oregon Iron Works and Greenberry facilities share a permanent resident inspector. The fabrication of the submodules continues to be an important area of focus for the project.

C. Quality Assurance (QA) and Quality Control (QC)

1. Overview

SCE&G's Quality Systems (QS) group continues to focus on the effective implementation of Quality Assurance Program (QAP) requirements by structural and mechanical module suppliers to the project. As part of this effort, SCE&G has increased its focus on CB&I's surveillance and audit activity at Cives, a supplier of commercial grade steel plate and other steel products used in the project, and CB&I-Laurens, which fabricates the bundles of piping that are used in the production of submodules and mechanical modules. SCE&G also devoted resources during the period to reviewing the Nuclear Procurement Issues Committee (NUPIC) audits of WEC and CB&I which occurred during the period. NUPIC is an international association of nuclear utilities that conducts independent audits of companies involved in the nuclear supply chain. The audits are conducted using audit teams from member utilities and other experts.

2. Witness and Hold Point Oversight

During the prior quarter, SCE&G identified issues regarding the quality of parts received from a Mangiarotti's sub-supplier, TW Metals. This finding was made during witness and hold point oversight related to the supplemental restraint bar modification of the PRHR. During the third quarter, SCE&G personnel visited TW Metals to ensure required improvements are being implemented. SCE&G

Quality Systems personnel are planning oversight activities at Mangiarotti during the fourth quarter 2015 to further assess the quality of parts from TW Metals.

SCE&G also conducted witness and hold point activities on the 3B Steam Generator at Doosan. The activities observed consisted of hydrostatic testing on the primary and secondary sides of the steam generator. During the secondary side hydrostatic test, leaks were identified in some tube sheet welds. Doosan made repairs and completed a satisfactory re-test.

Witness and hold point oversight was also conducted at Carolina Energy Solutions. During this oversight, six Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) witness and hold point activities were observed related to a Non-Destructive Examination (NDE) on the RCP casing suction nozzles. In addition, reviews were conducted of RCP Casing final document packages. No significant issues were noted during these reviews.

3. Audits and Surveillance of CB&I Suppliers

During the period, SCE&G participated in multiple CB&I audits and/or surveillances of its vendors, including General Cable, Greenberry Industrial, Toshiba, IHI, SMCI, and Cives. No significant issues were noted at General Cable. There were findings at Greenberry related to control of measuring and test equipment, audits, and storage of materials. There were findings issued between Toshiba and IHI related to the corrective action program, Commercial Grade Dedication, procedures, non-conformances, and surveillance follow up. One finding was issued at SMCI related to coating surface preparation. SCE&G will monitor corrective action plans related to each of these findings.

4. Cives Oversight

SCE&G personnel increased oversight activities of Cives due to issues identified with Cives' sub-suppliers not properly submitting Commercial Grade Dedication (CGD) packages as required by the purchase order (PO) with CB&I. CB&I has prioritized sub-supplier CGD packages for review and is in the process of ensuring all CGD packages are adequate. SCE&G personnel participated on a CB&I internal surveillance that was performed to evaluate issues associated with the submittal and review of CGD documentation from Cives. As a result of this surveillance four findings were issued. The findings were related to weaknesses in CB&I's corrective action process, organizational responsibilities, training, and inconsistencies in previously reviewed CGD plans.

5. CB&I-Laurens

SCE&G personnel participated in CB&I's continuing oversight activities at the CB&I-Laurens pipe spool production facility. Currently, CB&I-Laurens is

under a self-imposed stop work order related to the implementation of its corrective action program. Periodic updates to the status of the stop work order are reviewed by SCE&G. The CB&I-Laurens facility is in an advanced phase of the resolution plan for the stop work order which allows production and shipping to proceed subject to enhanced inspections of completed spools by CB&I personnel. In addition, CB&I is planning to conduct a First Article Survey at CB&I-Laurens in the near future. A First Article Survey provides a comprehensive review of all aspects of the procurement and fabrication process for a component to verify that all quality and technical requirements have been met prior to shipment. SCE&G will provide independent oversight for the First Article Survey.

6. Storage, Preventive Maintenance and Preservation of Equipment

SCE&G continued oversight of on-site storage, preventive maintenance and preservation of components before and after installation. CB&I has recently issued a revised procedure to clarify storage and preservation requirements for all components. SCE&G continues to monitor resolution of CB&I's preventative maintenance (PM) backlog. CB&I is currently reviewing all components that have come on site since July 2014 and is entering them in the PM database to ensure that required PM activities are completed. There is no backlog for components received prior to July 2014. CB&I anticipates that the PM backlog will be resolved by the end of the fourth quarter of 2015.

7. On-Site Field Observations

SCE&G personnel focused on field observations of welding and NDE activities on sub-modules, containment vessel, verification of piping spools from CB&I-Laurens, battery room coating installation, and concrete placement. SCE&G also continues to monitor activities related to improving welding documentation packages for on-site work. Improvements have been noted during the period.

8. NRC Inspection of WEC

During the prior quarter, SCE&G Quality Systems management met with WEC management at Cranberry, Pennsylvania to discuss the result of a recent NRC inspection of WEC's operations. The NRC identified concerns with implementation of WEC's QA/QC programs related to audits, corrective action, and supplier oversight. During the third quarter of 2015, SCE&G personnel assessed the implementation by WEC of the corrective actions identified as part of the inspection.

9. NUPIC Audit of WEC

During the period, NUPIC conducted a large scale audit of WEC's Electric Quality Programs and Supplier Quality, Engineering Center of Excellence (ECoE), and Westinghouse Nuclear Automation business unit, recently renamed the Operating Plant Business. As a result, a number of vendor deficiency reports were issued to WEC's Electric Quality Programs and Supplier Quality and its Engineering Center of Excellence. Most notably, the WEC corrective action program was found to have too many overdue issues outstanding. The other findings were generally administrative in nature.

In addition, the NUPIC audit team recommended a NUPIC Joint Utilities Limited Scope Audit (LSA) as a follow up to ensure resolution of some of the issues.

Also, the NUPIC audit team recommended the formation of a Westinghouse Supplier Improvement Focus Group to work with WEC to assist in the ongoing improvements at WEC in accordance with NUPIC recommendations.

The NUPIC audit concluded that Westinghouse Nuclear Automation is effectively implementing its Quality Management System (QMS) program for new plant automation design, fabrication, testing and supply of Instrumentation and Control (I&C) systems. Two minor deficiencies were identified during the audit. Overall the NUPIC audit teams determined that Westinghouse Nuclear Automation/Operating Plant Business is effectively implementing its Nuclear QA program, which fully meets the purposes of 10CFR50, Appendix B, Quality Assurance Criteria for Nuclear Plants.

10. NUPIC Nuclear Fuels Audit

SCE&G participated on NUPIC audits of Nuclear Fuels at the Western Zirconium facility, and a NUPIC limited scope audit of CB&I corporate. No significant issues were noted during these audits.

D. Licensing and Permitting and Regulatory Proceedings

As licensee for the Units, SCE&G is directly accountable to the NRC for contractors meeting nuclear safety-related QA/QC requirements both at the project site and at the facilities of its component manufacturers and equipment suppliers worldwide. WEC/CB&I, through the EPC Contract, is responsible to SCE&G for making sure that these requirements are met.

1. NRC Inspections

During the period, the NRC Resident Inspectors issued the Second Quarter, 2015 Integrated Inspection Report. Two Green Non-Cited Violations (NCVs) were documented: (1) 10CFR50, Appendix B, Criterion V, "Instructions Procedures and Drawings," for a failure to accomplish required Quality Control (QC) routine in-process welding inspections on Safety Related modules in accordance with CB&I procedures and AWS codes, and (2) 10 CFR 50, Appendix B, Criterion XI, "Test Control," for a failure to incorporate appropriate acceptance limits for grout used in repairs for Nuclear Island reinforcement. A Green finding is the least significant in the NRC Construction Reactor Oversight Process. It qualitatively indicates licensee performance is acceptable and that NRC Construction Reactor Oversight Process cornerstone objectives are fully met.

During the period, the NRC conducted a Mechanical ITAAC Inspection focused on Unit 2 and 3 Containment Vessel fabrication and Unit 3 Reactor Pressure Vessel (RPV) material properties. There were no findings associated with this inspection.

2. License Amendment Requests (LARs)

During the period, SCE&G filed three new LARs with the NRC. The NRC has granted a total of 37 LARs. Six LARs were granted during the reporting period. Sixteen LARs were pending on September 30, 2015. For ease of reference, a report that tabulates all the LARs submitted by SCE&G to the NRC as of September 30, 2015, is attached as Appendix 5.

As reported last period, a need was identified for two LARs (LAR 15-09 and LAR 15-08) related to the use of weldable couplers which were filed during this period. LAR 15-09 requests an amendment allowing the use of a newer edition (AWS D1.1:2000) of the currently required Structural Welding Code (AWS D1.1:1992) for weld design on structural steel component. LAR 15-09 was approved this period. LAR 15-08 requests an amendment to allow testing to determine the strength of welded couplers utilizing a combination of partial joint penetration and fillet welds. It is under NRC review. The NRC approved a Preliminary Amendment Request (PAR) for LAR 15-08 to allow concrete to be poured in the Unit 2 CA20 module and some portions of the Shield Building. No construction impacts are anticipated from LAR 15-08.

3. Inspections, Tests, Analyses and Acceptance Criteria (ITAAC)

During this period, SCE&G submitted four ITAAC Closure Notifications to the NRC. Of the 27 submitted ITAAC Closure Notifications, 24 have been verified complete and three are under review by the NRC.

4. Major Construction Permits

No major construction-related permits are outstanding. Other construction-related permits are anticipated to be obtained in the ordinary course of administering this project.

5. 2015 BLRA Update Docket

On March 12, 2015, SCE&G filed a petition with the Commission to establish new BLRA milestone dates for the project and to adopt updated capital cost schedules under the authority of S.C. Code Ann. § 58-33-270(E).

On June 29, 2015, the Company, the ORS, and the South Carolina Energy Users Committee (the Settling Parties) submitted a Settlement Agreement to the Commission. The Settling Parties agreed that the changes in cost and milestone schedules were not the result of imprudence on the part of the utility and recommended that the Commission approve the milestone and construction cost schedules contained in the March 2015 Update Petition as filed. As part of the settlement, SCE&G agreed to base its revised rates filings made beginning in 2016 on a return on equity of 10.5% rather than 11.0% as approved in Order No. 2009-104(A). The lower return on equity is estimated to reduce the revenue generated by future revised rates filings by a total of \$15 million. Two parties to the proceedings, the Sierra Club and CMC Steel South Carolina, did not sign the Settlement Agreement.

On September 10, 2015, the Commission issued Order No. 2015-661 adopting the new BLRA milestone dates and updated capital cost schedules for the project as proposed in SCE&G's March 2015 Update Petition. No party has petitioned for rehearing of that order, which is a prerequisite of any appeal. The time for such a petition has expired.

E. Engineering

1. Engineering Completion Status

As of September 30, 2015, the Units 2 and 3 plant design packages issued for construction (IFC) are 92% complete. Delivery of design documents for construction continues to be a focus area for SCE&G.

2. Site Specific Design Activities

Site specific design work is 94% complete. Design work is associated with support of the following site specific systems: Circulating Water System, Power Distribution Center, which is part of the Main AC Power System, Uninterruptible

Power Supply, Raw Water System (RWS), OWS, Service Building, and High-Side Switchyard.

F. Training

1. Certification of the Plant Simulators as Nuclear Regulatory Commission (NRC) -Approved Simulators (CASs)

SCE&G and WEC are pursuing a dual strategy to provide an NRC-approved plant simulator for conducting reactor operator licensing exams. One part of that strategy involves SCE&G's request that the NRC approve the plant simulator as a Commission Approved Simulator (CAS). Approval of the simulator as a CAS allows it to be used for operator training and limited licensing purposes. SCE&G filed the request for the NRC to approve the simulator as a CAS during the prior period.

During the current period, the NRC staff issued a Request for Additional Information (RAI) in support of its Safety Evaluation Report (SER) being prepared as part of the CAS certification process. A first phase of the response to the RAI was completed during the period. A second phase is anticipated to be completed in the next quarter. Certain issues that the NRC staff raised in the RAI will require substantive changes to the plant simulators. WEC is preparing resolution plans for these issues and schedules for implementing the required changes. The NRC staff has suspended work on its SER pending receipt of the full RAI response.

2. Certification of the Plant Simulators as Plant Reference Simulators (PRSs)

A second part of the strategy to obtain an NRC-approved plant simulator to support reactor operator licensing involves approving of the plant simulators as PRSs. This will allow the plant simulators to be used to support training and licensing activities in the near term and to support fuel loading and operation of the Units as they are completed.

During the previous period, Integrated System Validation (ISV) tests in support of PRS certification were performed on the plant simulator. ISV results are being compiled and the issues identified through that testing are being resolved. Discussions continue among Southern Nuclear Company (SNC), SCE&G, WEC and the NRC to develop a strategy to accomplish delivery of PRSs as soon as possible after this resolution is reached. Currently, resolution is projected for second quarter of 2017, which does not support operator licensing timelines. The parties are evaluating whether it would be possible to achieve earlier PRS certification by certifying the current version of the plant simulator,

which is Baseline 7, rather than seeking certification based on Baseline 8 or other subsequent versions of the simulators. Certifying Baseline 7 could accelerate the approval process and allow the simulator to be used for operator licensing sooner. Future versions of the simulator would be certified by the NRC in due course and operators would undergo gap training and testing as to the changes between the versions.

3. Simulator Development System (SDS) Installation

WEC has begun work on the SDS. The SDS will allow simulator engineers to test simulator software and trainers to develop and validate simulator training materials without interrupting the schedule for the initial licensed operator training.

4. Initial Licensed Operator (ILO) Training

During the period, SCE&G administered written audit exams on the 21 members of its first ILO class. Based on the results of those exams, 14 students advanced to take the written portion of the official NRC ILO exam. Nine of those students passed the exam. A Root Cause Analysis (RCA) of the lower than expected pass rate was completed using SCE&G, SNC, and WEC personnel, supported by industry training and licensing experts. SCE&G, SNC, and WEC are incorporating the findings of the RCA in their training, instruction and testing processes and schedules. The students from the first ILO class that did not take or did not pass the NRC written exam are being reassigned to other ILO classes.

The nine successful candidates in this first ILO class will take the simulator portion of the licensing exam when the plant simulator is approved either as a CAS or a PRS. In the interim, these students are engaged in a continuing training program to maintain their knowledge base. In addition, five of the successful students have been qualified as instructors and are assisting in training activities.

Current NRC regulations allow only a 30 day gap between written and simulator portions of the licensing exam. It is not known when a licensed or approved simulator will be available for the second part of the exam. As a result, SCE&G and SNC, in consultation with the Nuclear Energy Institute, are preparing a request for the NRC to waive this requirement in reliance on the continuing training programs for successful candidates. Requiring the successful candidates to repeat the written exam could result in candidate morale and retention issues which SCE&G is working to avoid.

Based on the finding contained in the RCA, the written and integrated operator simulator exams for the second ILO class have been rescheduled. Those exams were originally scheduled for November of 2016. Current plans are to conduct an NRC written exam for the second ILO class in April 2016, then

administer a simulator operating exam to both the first and second ILO classes in September 2016. This plan is contingent on progress in obtaining approval of a plant simulator to be used in the simulator portion of the exam and a favorable NRC decision on the waiver of the 30 day rule as to the first ILO class.

A third ILO class, currently numbering 25 students is scheduled to take the NRC written and simulator exam in the fourth quarter of 2017.

5. Maintenance and Technical (M&T) Staff Training

During the period, trainees in the M&T programs completed the initial training sessions for their disciplines including Tier 1 initial training, Tier 2 common training, and Tier 2 discipline-specific training. With the possible exceptions of recently hired employees, all trainees in engineering programs completed their orientation and fundamentals training sessions.

It is anticipated that the Institute of Nuclear Power Operations (INPO) Initial Accreditation for the M&T program Accreditation Team Visit (ATV) will take place in the fourth quarter of 2016.

The schedule for development of maintenance training material continues to be a challenge and is threatening the current Tier 3 (AP 1000-specific training) schedule for maintenance and technical staff. In response, SCE&G is committing supplemental personnel and resources to improve the rate of training material development.

Work has begun on a Maintenance Training Skid (MTS) that will be used to train instrument and control technicians on plant control systems (Ovation) and reactor protection systems (Common Q) training.

G. Operational Readiness

1. Mission Critical Hiring

For 2015, SCE&G has identified 71 positions to be filled for the year with 35 identified as mission critical hires. By the close of the period, 39 positions were filled with 27 of those being mission critical.

2. Programs and Procedures

SCE&G continues to use the Integrated Operational Readiness Schedule to assess its ability to meet Operational Readiness milestones as the project progresses. Although the schedule continues to be dynamic, the procedure development program is approximately 14% complete. Engineered programs continue to be developed per the schedule and targets are being met.

3. Collaborative Equipment Reliability (ER) Program

The collaborative project with SNC to classify structures, systems and components and to establish maintenance strategies for the AP1000 continues. Of the 80 AP1000 standard plant systems, Maintenance Rule work is complete on 79, ER component classification is complete on 78, Preventative Maintenance strategy development is complete on 71, and Functional Equipment group assignments are complete on 78. This project is expected to be complete by the end of 2016. Additional collaboration areas are being pursued to leverage resources.

4. Materials Procurement

During the period, SCE&G, WEC, and CB&I came to an agreement on the data requirements for the critical spare parts list for the Units. WEC also provided the critical spare parts list for the equipment that has been purchased to date. Data validation has started and the data appears to meet the requirements. All of the data required is not available electronically for the CB&I scope of supply and some data will need to be compiled manually. SCE&G and CB&I are negotiating the timeframe needed to complete this task. SCE&G anticipates definitive pricing for the critical spare parts list after the conclusion of these reviews.

5. Master Equipment List (MEL)/Component Labeling

The MEL is a list that identifies the attributes for assets which are permanent plant equipment used in the Units. During the second quarter of 2015, WEC assigned a dedicated resource to resolve issues related to equipment identification and methods to be used to label and tag identified equipment. Work was performed late in that quarter to provide the Consortium with specific details related to SCE&G's need for a more comprehensive definition of its requirements related to the MEL and subsequent labeling of components. Since that time, progress has been made to identify MEL components in a more consistent manner, though additional work and negotiation with WEC continues in this area. Progress on component labeling was slowed due to changes in personnel within CB&I working on this project. Additional commercial issues were identified by CB&I related to items such as label type, information needed, color coding, and number of labels. These matters are under negotiation with CB&I. These issues are addressed in the October 2015 EPC Amendment.

H. Change Control/Owners' Cost Forecast

1. Plant Layout Security

During the period, SCE&G and WEC/CB&I executed Change Order No. 26 for the work to enhance the physical security of the Units in light of the final layout of the plant and facilities. Change Order No. 26 covers Phase 1 and Phase 2

of anticipated work. Additional phases of work are anticipated. The cost of this change order is \$20.4 million and was included in the cost forecasts approved by the Commission in Order No. 2015-661 dated September 10, 2015. The costs associated with Phases 1 and 2 of plant layout security would be included in the settlement reflected in the October 2015 EPC Amendment.

2. Cyber Security Upgrades Phase II

SCE&G continues to evaluate options for providing the necessary level of cyber security for the Units and continues discussions with WEC/CB&I on their required scope of work. SCE&G is evaluating subcontracting certain portions of this cyber security work to parties other than WEC/CB&I. This is in response to a request by WEC/CB&I that SCE&G agree to excuse two years of schedule delays as a consequence of WEC/CB&I undertaking the cyber security project. The cyber security estimated cost of \$18.8 million was included in the cost forecasts approved by the Commission in Order No. 2015-661 dated September 10, 2015. The costs associated with cyber security would be included in the settlement reflected in the October 2015 EPC Amendment.

3. Certain Other Change Orders

Negotiations continued on: (1) the final language for Change Order No. 16 (delay in receiving the combined operating licenses, Shield Building redesign, module redesign, and Unit 2 rock conditions) and (2) Change Order No. 17 (equipment required to be installed in the OWS for the removal of bromide from raw water during treatment, the transfer of certain CB&I start-up construction support, Time & Material scopes of work and associated dollars to the Target and Firm price categories, and other miscellaneous items). Costs related to Change Order 16 were included in the cost forecasts approved by the Commission in Order No. 2015-661. There will be no increase to the EPC Contract costs as a result of Change Order No. 17. The contractual impacts associated with Change Orders No. 16 and 17 would be included in the settlement reflected in the October 2015 EPC Amendment.

4. Notice of Change

During the period, SCE&G received one Notice of Change under the EPC Contract. This Notice of Change was related to certain aspects of the work for the Initial Test Program for the Units that WEC/CB&I contends is outside of the current EPC Contract costs. The parties continue to discuss this scope of work and the associated notice. The costs associated with this notice would be included in the settlement reflected in the October 2015 EPC Amendment.

5. Shield Building Mitigation

As possible mitigation for delay in Shield Building panel fabrication, CB&I has asked NNI to consider expanding its manufacturing facility to allow additional panels to be worked in parallel. The estimated cost of the Shield Building mitigation is \$12.1 million and was included in the cost forecasts approved by the Commission in Order No. 2015-661 dated September 10, 2015. SCE&G is awaiting confirmation that the Shield Building mitigation plan remains viable. The costs associated with Shield Building mitigation would be included in the settlement reflected in the October 2015 EPC Amendment.

6. Ovation and Common Q Instrumentation and Control (I&C) Maintenance Training Systems

During this period, Change Order No. 22 was executed for the Common Q I&C Maintenance Training System at a cost of \$816,334. These maintenance training systems are required to support training and software maintenance on the Ovation and Common Q systems without interfering with the use of the primary systems for operations. The cost of a combined Ovation and Common Q system was included in the cost forecasts approved by the Commission in Order No. 2015-661 in a total amount of \$880,000. SCE&G continues discussions with WEC on the scope of work for the Ovation Maintenance Training system change order and requested WEC to provide updated cost information for a scaled down version of the Ovation training system. The costs associated with Ovation Maintenance Training System would be included in the settlement reflected in the October 2015 EPC Amendment. If SCE&G selects the fixed price option as described in Section I.B.14 above, then the costs associated with the Common Q Change Order No. 22 would be included in the settlement reflected in the October 2015 EPC Amendment because a Change Order has been executed.

7. Simulator Development System (SDS)

During this period, SCE&G and WEC/CB&I executed Change Order No. 23 under which WEC/CB&I will provide SCE&G with an SDS to serve as a platform for upgrades, modifications and routine maintenance of the PRS software. The SDS will include a complete copy of the PRS software which can be serviced and modified without interfering with the use of the PRS for training and testing purposes. The cost of this change order was \$930,393. This change order was included in the cost forecasts approved by the Commission in Order No. 2015-661. The estimated amount of this change order as included in those forecasts was \$605,000. If SCE&G selects the fixed price option as described in Section I.B.14 above, then the costs associated with the SDS would be included in the settlement reflected in the October 2015 EPC Amendment.

8. Warehouse Fire Safety

During this period, SCE&G continued to negotiate a draft change order with WEC/CB&I regarding the Warehouse Fire Safety to upgrade the remote monitoring capabilities of the fire and security systems in three of the on-site warehouses that serve the project. This upgrade will promote safety and increase the limits of available insurance coverage. The cost of the change order is estimated to be \$121,000 and this amount was included in the cost forecasts approved by the Commission in Order No. 2015-661. This change order would be included in the settlement reflected in the October 2015 EPC Amendment.

9. Corrective Action Program Interface (CAP-I)

The CAP-I provides for the administrative interface during construction between SCE&G's corrective action program and WEC/CB&I's comparable programs. After negotiations with WEC/CB&I over the scope of work and costs, Change Order No. 25 for 2015 CAP-I costs was executed in the amount of \$143,286. Going forward, SCE&G anticipates change orders for CAP-I to be executed annually. CAP-I costs arose after the March 2015 Update Petition and were not included in the forecasts approved by the Commission in Order No. 2015-661. If SCE&G selects the fixed price option as described in Section I.B.14 above, then the costs associated with CAP-I would be included in the settlement reflected in the October 2015 EPC Amendment.

10. Redefinition of the Wetlands Boundaries

Due to a change in the site's wetland boundaries, CB&I was required to relocate two structures on the transmission line between V.C. Summer Switchyard 2 and the Unit 2 and 3 transformer high side switchyards. Change Order No. 24 for this work was executed this period at a cost of \$5,271. These costs arose after the March 2015 Update Petition and were not included in the forecasts approved by the Commission in Order No. 2015-661. If SCE&G selects the fixed price option as described in Section I.B.14 above, then the costs associated with this change order would be included in the settlement reflected in the October 2015 EPC Amendment.

11. Patient Protection and Affordable Care Act (ACA)

During the period, SCE&G received a draft change order from WEC for its increase in health care costs attributable to the ACA for 2014 in the amount of \$106,333. SCE&G anticipates receiving separate, annual change orders for cost impacts due to ACA from WEC and CB&I. The cost of change orders for these costs over the full term of the project was included in the cost forecasts approved by the Commission in Order No. 2015-661 dated September 10, 2015, in the amount of \$2.2 million. If SCE&G selects the fixed price option as described in

Section I.B.14 above, then the costs associated with the ACA for 2014 would be included in the settlement reflected in the October 2015 EPC Amendment.

I. Transmission

1. VCS2-Lake Murray 230 kV Line No. 2 and Segment of the VCS2-St. George 230kV Line No. 1

The VCS2-Lake Murray 230 kV Line No. 2 is energized. SCE&G plans to energize the segment of the VCS2-St. George 230 kV Line No. 1 that was built as a part of this project when the remaining segment of the VCS2-St. George 230 kV Line No. 1 has been completed.

2. The Remaining Segment of VCS2-St. George 230 kV Line No. 1 and the VCS2-St. George 230 kV Line No. 2

The VCS2-St. George 230 kV Line No. 2 segment between VCS2 and the Lake Murray Substation is complete. Construction of both the No. 1 and No. 2 lines from the Lake Murray Substation to the point where they cross Interstate 20 towards the site of the new Saluda River Substation is complete and is continuing on the Saluda River Substation side of Interstate 20. During the period, construction continued for both the No. 1 and No. 2 lines in the Dixiana area moving south toward Gaston and construction of this approximate 6.5 mile segment is expected to be complete by fourth quarter 2015.

3. St. George Switching Station

During the period, all concrete foundations and grounding for the St. George Switching Station were installed. The control house for the station was delivered and set in place and the relay panels, AC and DC panels, and batteries were installed in the control house. All steel structures, disconnect switches, lightning masts, bus support insulators, and lightning arrestors were installed. The potential transformers, power pot transformers, and power circuit breakers were installed and connected with ACSR conductor. The current scheduled completion date is June 2016.

4. Saluda River Substation

Construction of the Saluda River 230/115 kV Substation is substantially complete and the substation entered into commercial operation on August 14, 2015.

5. Canadys-Sumter 230 kV line

During the period, construction activities continued on the rebuilding of the Canadys to St. George segment of the Canadys-Sumter 230 kV line to increase the capacity of the line. This segment consists of approximately 10.5 miles and will fold into the new St. George Switching Station. Construction activities during the quarter included continued installation of access roads, protective mats in wetlands areas, and other construction access facilities. Also, delivery of construction materials began and the steel pole structures were delivered to the construction site where they were framed in preparation for installation. The scheduled completion date is mid-2016.

6. Wateree-St. George-Williams 230 kV line

During the period, construction activities began on the rebuilding of the St. George to Summerville segment of the Wateree-St. George-Williams 230 kV line to increase the capacity of the line. This segment consists of approximately 30.5 miles and will fold into the new St. George Switching Station. Construction activities during the quarter included installation of access roads, protective mats in wetlands areas, and other construction access facilities in preparation for the delivery of construction materials. The scheduled completion date is late 2017.

III. Anticipated Construction Schedules

The milestone schedule approved in Order No. 2015-661 establishes a new substantial completion date for Unit 2 of June 19, 2019, and a new substantial completion date for Unit 3 of June 16, 2020. Those continue to be the operative milestone dates for the project but schedule mitigation will be required in several areas to meet them. By the close of this period, 109 of the 146 milestones for reporting purposes are complete. Of the remaining 37, 23 have been delayed between one and seven months compared to the schedule for the project as approved in Order No. 2015-661. None are outside of approved schedule contingencies.

Appendix 1 to this quarterly report lists and updates each of the specific milestones constituting the anticipated construction schedules for the Units pursuant to S.C. Code Ann. § 58-33-270(B)(1) and Order No. 2015-661.

IV. Schedules of the Capital Costs Incurred Including Updates to the Information Required by S.C. Code Ann. § 58-33-270(B) (6) (the Inflation Indices)

The Capital Costs section of this report (Section IV.A) provides an update of the cumulative capital costs incurred and forecasted to be incurred in completing the project. These costs are compared to the cumulative capital cost targets approved by the

Commission in Order No. 2015-661. The approved capital cost targets have been adjusted to reflect the currently reported historical escalation rates. There has not been any use by the Company of the capital cost timing contingencies that were approved by the Commission in Order No. 2009-104(A). The Inflation Indices section (Section IV.B) of this report provides updated information on inflation indices and the changes in them.

A. Capital Costs

Appendix 2 shows the Cumulative Project Cash Flow target as approved in Order No. 2015-661 and as updated for escalation and other Commission-approved adjustments under the heading “**Per Order 2015-661 Adjusted.**”

Appendix 2 also shows the cumulative cash flow for the project based on actual expenditures to date and the Company’s current forecast of cost and construction schedules under the heading “**Actual through September 2015 plus Projected.**”

As shown on **Appendix 2**, the projected expenditure for the project for the 12 months ending December 31, 2015, is approximately \$654 million. As shown on **Appendix 2**, line 39, the cumulative amount projected to be spent on the project as of December 31, 2015, is approximately \$3.477 billion. As shown on **Appendix 2**, line 18, the Cumulative Project Cash Flow target approved by the Commission for year-end 2015 adjusted for current escalation is approximately \$3.777 billion. As a result, the cumulative cash flow at year-end 2015 is approximately \$300 million less than the target.

For comparison purposes, **Appendix 3** sets out the cash flow schedule for the project as it was approved in Order No. 2015-661. **Appendix 3** does not include any adjustments to the cash flow schedule for changes in inflation indices or adjustments in capital cost schedules made by the Company. The AFUDC forecast presented in **Appendix 3** is the AFUDC forecast that was current at the time of Order No. 2015-661.

B. Inflation Indices

Appendix 4 shows the updated inflation indices approved in Order No. 2009-104(A). Included is a history of the annual Handy-Whitman All Steam Index, South Atlantic Region; the Handy-Whitman All Steam and Nuclear Index, South Atlantic Region; the Handy-Whitman All Transmission Plant Index, South Atlantic Region; and the Chained GDP Index for the past 10 years.

V. Updated Schedule of Anticipated Capital Costs

The updated schedule of anticipated capital costs for Units 2 and 3 is reflected in **Appendix 2**.

VI. Conclusion

As indicated above, the scheduled completion dates for Units 2 and 3 are June 19, 2019, and June 16, 2020 respectively, but as between the parties will change to August 31, 2019 and 2020 if the October 2015 EPC Amendment becomes effective. The total project capital cost is now estimated at approximately \$5.2 billion (SCE&G's portion in 2007 dollars) or \$6.9 billion including escalation and allowance for funds used during construction (SCE&G's portion in future dollars). These costs are currently projected to become \$5.5 billion and \$7.1 billion, respectively if the October 2015 EPC Amendment becomes effective.

The Company maintains a staff that monitors the work of its contractors and continues to monitor closely areas of concern related to the cost and schedule for the project. SCE&G continues to work diligently to ensure that the project is completed safely, that substantial completion dates are met, and that all costs are reasonable. The Company will continue to update the Commission and the ORS of progress and concerns as the project proceeds.

ATTACHMENT 1**GLOSSARY OF ACRONYMS OR DEFINED TERMS**

Acronym or Defined Term	Reference
ACA	Affordable Care Act.
AFUDC	Allowance for Funds Used During Construction.
AP1000	The WEC designed Advanced Pressurized water nuclear reactor of approximately 1000 megawatts generating capacity.
APOG	A group of utilities who have submitted applications for AP1000 COLs.
ATV	Accreditation Team Visit- performed by the INPO.
BLRA	The Base Load Review Act, S.C. Code Ann. § 58-33-210 et seq. (Supp. 2009).
CA	The designation for specific pre-fabricated structural modules that form part of the reactor building or auxiliary building, such as Module CA20.
CAP	Corrective Action Program.
CAP-I	Corrective Action Program Interface.
CAR	A Corrective Action Report related to design, engineering or construction of the Units, or related processes, that must be corrected.
CAS	Commission(NRC)-Approved Simulators.
CB&I	Chicago Bridge & Iron, a sub-contractor on the project which, upon acquisition of the Shaw Group, became a member of the Consortium and a prime contractor on the project.
CB&I-LC	CB&I Lake Charles - the module fabrication unit formerly known as Shaw Modular Solutions or SMS and located in Lake Charles, Louisiana.
CB&I Services	A subsidiary of CB&I that is fabricating the containment vessels on site under contract with Westinghouse.
CES	Carolina Energy Solutions, a subcontractor located in Rock Hill, South Carolina.

ATTACHMENT 1**GLOSSARY OF ACRONYMS OR DEFINED TERMS**

Acronym or Defined Term	Reference
CGD	Commercial Grade Dedication.
CMIS	Configuration Management Information System.
CMMS	Computerized Maintenance Management System.
COLs	Combined Operating Licenses for construction and operation of a nuclear unit issued by the NRC.
COLA	A Combined Operating License Application.
Commission	The Public Service Commission of South Carolina.
Consortium	The joint venture between WEC and CB&I to construct the Units under the terms of the EPC Contract.
CR	A Condition Report communicating and memorializing concerns with the design, engineering or construction of the Units, or related processes, which in some cases can become the basis for a Corrective Action Report.
CV	The Containment Vessel which provides containment for the reactor vessel and associated equipment.
CVBH	The Containment Vessel Bottom Head that forms the bottom of the Containment Vessel.
CWIP	Construction Work in Progress.
CWP	Circulating Water Pipe.
CWS	The Circulating Water System –the system that will transport waste heat from the turbines to the cooling towers.
Cyber Security	Technologies, processes and practices designed to protect networks, computers, programs and data from attack, damage or unauthorized access.

ATTACHMENT 1**GLOSSARY OF ACRONYMS OR DEFINED TERMS**

Acronym or Defined Term	Reference
DCD	Design Control Document which is approved by the Nuclear Regulatory Commission and sets forth the approved design of a nuclear reactor.
Departures	Departures are minor deviations from the approved Design Control Document included in the licensing basis for the Units that do not rise to the level requiring a LAR.
ECoE	WEC's Engineering Center of Excellence.
EMD	Electro-Mechanical Division of Curtiss-Wright Corp., the sub-contractor for the Reactor Coolant Pumps.
EPA	The United States Environmental Protection Agency.
EPC Contract	The Engineering, Procurement and Construction Agreement for construction of the Units entered into by SCE&G and WEC/CB&I.
ER	Equipment Reliability.
ERB	The Emergency Response Building which provides office space and housing for the emergency response personnel and equipment for all three units.
Exit Debriefing	A meeting held between the NRC and the licensee at the conclusion of an NRC inspection to discuss the results of the inspection.
FERC	The Federal Energy Regulatory Commission.
Fixed/Firm	Prices under the EPC Contract which are either fixed or are firm but subject to defined escalation rates.
GDP	Gross Domestic Product.
HFE/ISV	Human Factors Engineering/Integrated Systems Validation –part of the development of a training simulator for the Units.
HL or Hot Leg	That part of the Reactor Cooling Loop that transports steam to the steam generators.

ATTACHMENT 1**GLOSSARY OF ACRONYMS OR DEFINED TERMS**

Acronym or Defined Term	Reference
HLD	Heavy Lift Derrick - the derrick that was erected on site to move large modules and equipment.
IBF	Subcontractor of Tioga that manufactures the Reactor Coolant Loop piping.
I&C	Instrumentation and Control.
ICN	ITAAC Closure Notification – the letter from the licensee to notify the NRC that an ITAAC is complete in accordance with 10 CFR 52.99(c)(1).
IFC	Issued for Construction – engineering drawings that include information necessary for construction of specific structures, systems and components.
ILO	Initial Licensed Operator.
INPO	Institute of Nuclear Power Operations.
IPS	Integrated Project Schedule for licensing and construction of the Units.
ISV	Integrated Systems Validation.
ITAAC	Inspections, Tests, Analyses, and Acceptance Criteria which are the inspections, tests, analyses and acceptance criteria that the NRC has determined to be necessary and sufficient to demonstrate that a nuclear unit has been constructed and will operate in conformity with the COLs, the Atomic Energy Act of 1954, as amended, and the NRC's regulations.
LAR	License Amendment Request – A formal request made by VCSNS to amend the combined operating license, its appendices, or its associated bases.
LNTP	Limited Notice to Proceed authorizing a vendor to commence specific work.
LSA	Limited Scope Audit.

ATTACHMENT 1**GLOSSARY OF ACRONYMS OR DEFINED TERMS**

Acronym or Defined Term	Reference
LSS	Limited Scope Simulator –a training simulator with limited functionality that can be used for the initial stages of operator training.
M&T	Maintenance and Technical.
MTS	Maintenance Training Skid.
MAB	Module Assembly Building - a building on site where large modules will be constructed and equipment will be prepared for installation in a space that is protected from the elements.
Mangiarotti	Mangiarotti Nuclear, S.p.A.
MEL	Master Equipment List – a list that identifies the attributes for assets which are permanent plant equipment used in the plant.
NCV	Non-Cited Violations.
NDE	Non-Destructive Examination.
NEI	Nuclear Energy Institute.
NI	Nuclear Island, comprising the steel containment vessel, the reactor building, and the auxiliary building.
NLC	Nuclear Learning Center - a training facility operated by SCE&G at the Jenkinsville site.
NLO	Non-Licensed Operator.
NND	The New Nuclear Deployment Team within SCE&G.
NNI	Newport News Industrial - a module fabrication subcontractor to WEC/CB&I.
NON	Notice of Non-conformance.

ATTACHMENT 1**GLOSSARY OF ACRONYMS OR DEFINED TERMS**

Acronym or Defined Term	Reference
NPDES	National Pollutant Discharge Elimination System.
NRC	The United States Nuclear Regulatory Commission.
NUPIC	Nuclear Procurement Issues Committee--An international association of nuclear utilities that conducts independent audits of companies involved in the nuclear supply chain.
ORS	South Carolina Office of Regulatory Staff.
OWS	Off Site Water System – the system that withdraws water from Monticello Reservoir and provides potable and filtered water for the Units.
PAR	Preliminary Amendment Request - A formal request made by VCSNS which allows VCSNS to proceed at its own risk with work consistent with an amendment request contained in an LAR prior to approval.
PDC	Power Distribution Center - prefabricated, modular enclosures housing electrical equipment such as switchgear, motor control center equipment and other auxiliary equipment.
Pike	Pike Energy Solutions, a contractor for transmission and switchyard related work.
PM	Preventative Maintenance.
PMO	Project Management Organization.
PO	Purchase Order.
PRA	Probabilistic Risk Assessment.
PRHR	The Passive Residual Heat Removal Heat Exchanger unit –a heat exchanger unit that is part of the passive safety system which provides cooling to the AP1000 reactor during emergency situations.

ATTACHMENT 1**GLOSSARY OF ACRONYMS OR DEFINED TERMS**

Acronym or Defined Term	Reference
PRS	Plant Reference Simulator – a training simulator with full functionality that can be used in all stages of operator training.
PWS	The Potable Water System - which provides potable water to the site.
QA	Quality Assurance – The planned and systematic activities implemented in a quality system so that the quality requirements for a product or service will be fulfilled.
QAP	Quality Assurance Program.
QA/QC	Quality Assurance/Quality Control.
QC	Quality Control – The observation techniques and activities used to fulfill requirements for quality.
QMS	Quality Management System.
QS	Quality Systems.
RAI	Requests for Additional Information issued by the NRC staff to license applicants.
RCA	Root Cause Analysis – identification and evaluation of the reason for non-conformance, an undesirable condition, or a problem which (when solved) restores the status quo.
RC/SC	Reinforced Concrete to Steel Component.
RCL	The Reactor Coolant Loop – the piping and related equipment that transports heat from the reactor to the steam generator.
RCP	The Reactor Cooling Pump which forms part of the Reactor Coolant System.
RCS	The Reactor Coolant System – the complete system for transferring and transporting heat from the reactor to the steam generator.
RFI	Requests for Information issued by the NRC staff to licensees.

ATTACHMENT 1**GLOSSARY OF ACRONYMS OR DEFINED TERMS**

Acronym or Defined Term	Reference
ROW	Right-of-way.
RT	Radiographic Testing – a nondestructive testing method of inspecting materials for hidden flaws by using the ability of short wavelength electromagnetic radiation (high energy photons) to penetrate various materials.
RV	Reactor Vessel.
RWS	Raw Water System – the system for withdrawing and transporting raw water from the Monticello Reservoir.
SAT	Site Acceptance Testing.
SCDHEC	The South Carolina Department of Health and Environmental Control.
SCDNR	The South Carolina Department of Natural Resources.
SCE&G or The Company	South Carolina Electric & Gas Company.
SCPSC	The Public Service Commission of South Carolina.
SDS	Simulator Development System.
SER	Safety Evaluation Report--a report submitted to the NRC.
SMCI	MetalTek-SMCI Division.
SMS	Shaw Modular Solutions, LLC.
SNC	Southern Nuclear Company – a subsidiary of Southern Company and licensed operator of the Vogtle Nuclear Units and two other nuclear plants.
SRO	Senior Reactor Operator.
SROC	Senior Reactor Operator Certification.

ATTACHMENT 1**GLOSSARY OF ACRONYMS OR DEFINED TERMS**

Acronym or Defined Term	Reference
Target	Costs under the EPC Contract where targets have been established but where SCE&G pays actual costs as incurred.
TEi	Thermal Engineering International – a subsidiary of Babcock Power which manufactures moisture separator reheaters and other power plant equipment.
Units	V. C. Summer Nuclear Station Units 2 & 3.
Update Docket	A proceeding under the BLRA seeking Commission approval of updated cost and construction schedules for the Units.
UPS	Uninterruptible Power Supply.
URI	Unresolved Items – A term used by the NRC during inspections for items that require further action.
USACOE	The United States Army Corps of Engineers.
VCSNS or VCSN	V. C. Summer Nuclear Station.
WEC	Westinghouse Electric Company, LLC.
WEC/CB&I	The consortium formed by Westinghouse Electric Company, LLC and CB&I.
WMS	Work Management System.
WRS	Waste Drain System.
WTP	The off-site Water Treatment Plant which will take water from Lake Monticello and treat it to potable water standards.
WWS	The Waste Water System – the system for collection, treatment and disposal of domestic waste water generated on site.

ATTACHMENT 1**GLOSSARY OF ACRONYMS OR DEFINED TERMS**

Acronym or Defined Term	Reference
YFS	The Yard Fire System – the system that provides fire detection and protection outside of the plant.
ZBS	The Offsite Power System –the system which provides electrical power to the site.

APPENDIX 1**V. C. Summer Nuclear Station Units 2 & 3**

**Quarterly Report to the South Carolina Office of Regulatory Staff
Submitted by South Carolina Electric & Gas Company
Pursuant to Public Service Commission Order No. 2009-104(A)**

Quarter Ending September 30, 2015

Appendix 1 lists and updates each of the milestones which the Commission adopted as the Approved Construction Schedule for the Units, pursuant to S.C. Code Ann. § 58-33-270(B)(1) in Order No. 2015-661. **Appendix 1** provides columns with the following information:

1. Milestone tracking ID number.
2. The description of the milestone as updated in Order No. 2015-661.
3. The BLRA milestone date as approved by the Commission in Order No. 2015-661.
4. The current milestone date.
5. For each completed milestone, the date by which it was completed. For milestones completed prior to the current reporting quarter, the milestone entry is shaded in gray. For milestones completed during the current reporting quarter, the milestone entry is shaded in green.
6. Information showing the number of months, if any, by which a milestone has been shifted. For milestones with planned completion dates that vary in days instead of months, the milestone entry is shaded in yellow.
7. Information as to whether any milestone has been shifted outside of the +18/-24 Month Contingency approved by the Commission.
8. Notes.

On the final page of the document, there is a chart summarizing milestone completion and movement comparing the current milestone date to the milestone date approved in Order No. 2015-661. This movement is shown for only the milestones that have not been completed.

15-3Q

Appendix 1
VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	15-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
1	Approve Engineering Procurement and Construction Agreement	Complete		5/23/2008		No	
2	Issue POs to nuclear component fabricators for Units 2 & 3 Containment Vessels	Complete		12/3/2008		No	
3	Contractor Issue PO to Passive Residual Heat Removal Heat Exchanger Fabricator - First Payment - Unit 2	Complete		8/18/2008		No	
4	Contractor Issue PO to Accumulator Tank Fabricator - Unit 2	Complete		7/31/2008		No	
5	Contractor Issue PO to Core Makeup Tank Fabricator - Units 2 & 3	Complete		9/30/2008		No	
6	Contractor Issue PO to Squib Valve Fabricator - Units 2 & 3	Complete		3/31/2009		No	
7	Contractor Issue PO to Steam Generator Fabricator - Units 2 & 3	Complete		5/29/2008		No	
8	Contractor Issue Long Lead Material PO to Reactor Coolant Pump Fabricator - Units 2 & 3	Complete		6/30/2008		No	
9	Contractor Issue PO to Pressurizer Fabricator - Units 2 & 3	Complete		8/18/2008		No	
10	Contractor Issue PO to Reactor Coolant Loop Pipe Fabricator - First Payment - Units 2 & 3	Complete		6/20/2008		No	
11	Reactor Vessel Internals - Issue Long Lead Material PO to Fabricator - Units 2 & 3	Complete		11/21/2008		No	
12	Contractor Issue Long Lead Material PO to Reactor Vessel Fabricator - Units 2 & 3	Complete		5/29/2008		No	
13	Contractor Issue PO to Integrated Head Package Fabricator - Units 2 & 3	Complete		7/31/2009		No	
14	Control Rod Drive Mechanism Issue PO for Long Lead Material to Fabricator - Units 2 & 3 - first payment	Complete		6/21/2008		No	
15	Issue POs to nuclear component fabricators for Nuclear Island structural CA20 Modules	Complete		8/28/2009		No	
16	Start Site Specific and balance of plant detailed design	Complete		9/11/2007		No	
17	Instrumentation & Control Simulator - Contractor Place Notice to Proceed - Units 2 & 3	Complete		10/31/2008		No	
18	Steam Generator - Issue Final PO to Fabricator for Units 2 & 3	Complete		6/30/2008		No	

Legend  = Completed  = Completed this Quarter  = Movement in Days Only

South Carolina Electric & Gas Company

15-3Q

Appendix 1
VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	15-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
19	Reactor Vessel Internals - Contractor Issue PO for Long Lead Material (Heavy Plate and Heavy Forgings) to Fabricator - Units 2&3	Complete		1/29/2010		No	
20	Contractor Issue Final PO to Reactor Vessel Fabricator - Units 2&3	Complete		9/30/2008		No	
21	Variable Frequency Drive Fabricator Issue Transformer PO - Units 2&3	Complete		4/30/2009		No	
22	Start clearing, grubbing and grading	Complete		1/26/2009		No	
23	Core Makeup Tank Fabricator Issue Long Lead Material PO - Units 2 & 3	Complete		10/31/2008		No	
24	Accumulator Tank Fabricator Issue Long Lead Material PO - Units 2&3	Complete		10/31/2008		No	
25	Pressurizer Fabricator Issue Long Lead Material PO - Units 2 & 3	Complete		10/31/2008		No	
26	Reactor Coolant Loop Pipe - Contractor Issue PO to Fabricator - Second Payment - Units 2 & 3	Complete		4/30/2009		No	
27	Integrated Head Package - Issue PO to Fabricator - Units 2 and 3 - second payment	Complete		7/31/2009		No	
28	Control Rod Drive Mechanisms - Contractor Issue PO for Long Lead Material to Fabricator - Units 2 & 3	Complete		6/30/2008		No	
29	Contractor Issue PO to Passive Residual Heat Removal Heat Exchanger Fabricator - Second Payment - Units 2 & 3	Complete		10/31/2008		No	
30	Start Parr Road intersection work	Complete		2/13/2009		No	
31	Reactor Coolant Pump - Issue Final PO to Fabricator - Units 2 & 3	Complete		6/30/2008		No	
32	Integrated Heat Packages Fabricator Issue Long Lead Material PO - Units 2 & 3	Complete		10/1/2009		No	
33	Design Finalization Payment 3	Complete		1/30/2009		No	
34	Start site development	Complete		6/23/2008		No	
35	Contractor Issue PO to Turbine Generator Fabricator - Units 2 & 3	Complete		2/19/2009		No	
36	Contractor Issue PO to Main Transformers Fabricator - Units 2 & 3	Complete		9/25/2009		No	

Legend  = Completed  = Completed this Quarter  = Movement in Days Only

South Carolina Electric & Gas Company

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Appendix 1
VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	15-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
37	Core Makeup Tank Fabricator Notice to Contractor Receipt of Long Lead Material - Units 2 & 3	Complete		12/30/2010		No	
38	Design Finalization Payment 4	Complete		4/30/2009		No	
39	Turbine Generator Fabricator Issue PO for Condenser Material - Unit 2	Complete		8/28/2009		No	
40	Reactor Coolant Pump Fabricator Issue Long Lead Material Lot 2 - Units 2 & 3	Complete		4/30/2009		No	
41	Passive Residual Heat Removal Heat Exchanger Fabricator Receipt of Long Lead Material - Units 2 & 3	Complete		5/27/2010		No	
42	Design Finalization Payment 5	Complete		7/31/2009		No	
43	Start erection of construction buildings, to include craft facilities for personnel, tools, equipment; first aid facilities; field offices for site management and support personnel; temporary warehouses; and construction hiring office	Complete		12/18/2009		No	
44	Reactor Vessel Fabricator Notice to Contractor of Receipt of Flange Nozzle Shell Forging - Unit 2	Complete		8/28/2009		No	
45	Design Finalization Payment 6	Complete		10/7/2009		No	
46	Instrumentation and Control Simulator - Contractor Issue PO to Subcontractor for Radiation Monitor System - Units 2 & 3	Complete		12/17/2009		No	
47	Reactor Vessel Internals - Fabricator Start Fit and Welding of Core Shroud Assembly - Unit 2	Complete		7/29/2011		No	
48	Turbine Generator Fabricator Issue PO for Moisture Separator Reheater/Feedwater Heater Material - Unit 2	Complete		4/30/2010		No	
49	Reactor Coolant Loop Pipe Fabricator Acceptance of Raw Material - Unit 2	Complete		2/18/2010		No	
50	Reactor Vessel Internals - Fabricator Start Weld Neutron Shield Spacer Pads to Assembly - Unit 2	Complete		8/28/2012		No	
51	Control Rod Drive Mechanisms - Fabricator to Start Procurement of Long Lead Material - Unit 2	Complete		6/30/2009		No	
52	Contractor Notified that Pressurizer Fabricator Performed Cladding on Bottom Head - Unit 2	Complete		12/23/2010		No	

Legend  = Completed  = Completed this Quarter  = Movement in Days Only

South Carolina Electric & Gas Company

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Appendix 1
VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	15-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
53	Start excavation and foundation work for the standard plant for Unit 2	Complete		3/15/2010		No	
54	Steam Generator Fabricator Notice to Contractor of Receipt of 2nd Steam Generator Tubesheet Forging - Unit 2	Complete		4/30/2010		No	
55	Reactor Vessel Fabricator Notice to Contractor of Outlet Nozzle Welding to Flange Nozzle Shell Completion - Unit 2	Complete		12/30/2010		No	
56	Turbine Generator Fabricator Notice to Contractor Condenser Fabrication Started - Unit 2	Complete		5/17/2010		No	
57	Complete preparations for receiving the first module on site for Unit 2	Complete		1/22/2010		No	
58	Steam Generator Fabricator Notice to Contractor of Receipt of 1st Steam Generator Transition Cone Forging - Unit 2	Complete		4/21/2010		No	
59	Reactor Coolant Pump Fabricator Notice to Contractor of Manufacturing of Casing Completion - Unit 2	Complete		11/16/2010		No	
60	Reactor Coolant Loop Pipe Fabricator Notice to Contractor of Machining, Heat Treating & Non-Destructive Testing Completion - Unit 2	Complete		3/20/2012		No	
61	Core Makeup Tank Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 2	Complete		11/26/2012		No	
62	Polar Crane Fabricator Issue PO for Main Hoist Drum and Wire Rope - Units 2 & 3	Complete		2/1/2011		No	
63	Control Rod Drive Mechanisms - Fabricator to Start Procurement of Long Lead Material - Unit 3	Complete		6/14/2011		No	
64	Turbine Generator Fabricator Notice to Contractor Condenser Ready to Ship - Unit 2	Complete		3/26/2012		No	
65	Start placement of mud mat for Unit 2	Complete		7/20/2012		No	
66	Steam Generator Fabricator Notice to Contractor of Receipt of 1st Steam Generator Tubing - Unit 2	Complete		9/28/2010		No	
67	Pressurizer Fabricator Notice to Contractor of Welding of Upper and Intermediate Shells Completion - Unit 2	Complete		10/28/2011		No	
68	Reactor Vessel Fabricator Notice to Contractor of Closure Head Cladding Completion - Unit 3	Complete		6/28/2012		No	

Legend  = Completed  = Completed this Quarter  = Movement in Days Only

South Carolina Electric & Gas Company

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Appendix 1
VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	15-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
69	Begin Unit 2 first nuclear concrete placement	Complete		3/9/2013		No	
70	Reactor Coolant Pump Fabricator Notice to Contractor of Stator Core Completion - Unit 2	Complete		12/1/2011		No	
71	Fabricator Start Fit and Welding of Core Shroud Assembly - Unit 2	Complete		7/29/2011		No	
72	Steam Generator Fabricator Notice to Contractor of Completion of 1st Steam Generator Tubing Installation - Unit 2	Complete		1/27/2012		No	
73	Reactor Coolant Loop Pipe-shipment of Equipment to Site - Unit 2	Complete		12/19/2013		No	
74	Control Rod Drive Mechanism - Ship Remainder of Equipment (Latch Assembly & Rod Travel Housing) to Head Supplier - Unit 2	Complete		7/16/2012		No	
75	Pressurizer Fabricator Notice to Contractor of Welding of Lower Shell to Bottom Head Completion - Unit 2	Complete		12/22/2011		No	
76	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Steam Generator Tubing Installation - Unit 2	Complete		5/4/2012		No	
77	Design Finalization Payment 14	Complete		10/31/2011		No	
78	Set module CA04 for Unit 2	Complete		5/3/2014		No	
79	Passive Residual Heat Removal Heat Exchanger Fabricator Notice to Contractor of Final Post Weld Heat Treatment - Unit 2	Complete		5/24/2011		No	
80	Passive Residual Heat Removal Heat Exchanger Fabricator Notice to Contractor of Completion of Tubing - Unit 2	Complete		5/29/2012		No	
81	Polar Crane Fabricator Notice to Contractor of Girder Fabrication Completion - Unit 2	Complete		10/23/2012		No	
82	Turbine Generator Fabricator Notice to Contractor Condenser Ready to Ship - Unit 3	Complete		8/26/2013		No	
83	Set Containment Vessel ring #1 for Unit 2	Complete		6/3/2014		No	
84	Reactor Coolant Pump Fabricator Delivery of Casings to Port of Export - Unit 2	Complete		7/6/2013		No	
85	Reactor Coolant Pump Fabricator Notice to Contractor of Stator Core Completion - Unit 3	Complete		7/18/2013		No	
86	Reactor Vessel Fabricator Notice to Contractor of Receipt of Core Shell Forging - Unit 3	Complete		3/29/2012		No	

Legend  = Completed  = Completed this Quarter  = Movement in Days Only

South Carolina Electric & Gas Company

Appendix 1
VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	15-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
87	Contractor Notified that Pressurizer Fabricator Performed Cladding on Bottom Head - Unit 3	Complete		11/9/2011		No	
88	Set Nuclear Island structural module CA03 for Unit 2	12/28/2015	6/16/2016		+6 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
89	Squib Valve Fabricator Notice to Contractor of Completion of Assembly and Test for Squib Valve Hardware - Unit 2	Complete		5/10/2012		No	
90	Accumulator Tank Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3	Complete		9/16/2013		No	
91	Polar Crane Fabricator Notice to Contractor of Electric Panel Assembly Completion - Unit 2	Complete		3/6/2013		No	
92	Start containment large bore pipe supports for Unit 2	Complete		11/13/2014		No	
93	Integrated Head Package - Shipment of Equipment to Site - Unit 2	Complete		5/9/2014		No	
94	Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 2	Complete		12/17/2013		No	
95	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Steam Generator Tubing Installation - Unit 3	Complete		2/7/2014		No	
96	Steam Generator Fabricator Notice to Contractor of Satisfactory Completion of 1st Steam Generator Hydrotest - Unit 2	Complete		1/14/2013		No	
97	Start concrete fill of Nuclear Island structural modules CA01 and CA02 for Unit 2	7/18/2016	1/3/2017		+6 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
98	Passive Residual Heat Removal Heat Exchanger - Delivery of Equipment to Port of Entry - Unit 2	Complete		4/25/2014		No	
99	Refueling Machine Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 2	Complete		1/8/2015		No	
100	Deliver Reactor Vessel Internals to Port of Export - Unit 2	7/30/2015	11/20/2015		+4 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.

Legend  = Completed  = Completed this Quarter  = Movement in Days Only

South Carolina Electric & Gas Company

15-3Q

Appendix 1
VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	15-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
101	Set Unit 2 Containment Vessel #3	8/23/2016	9/6/2016		+1 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
102	Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 2	Complete		1/16/2015		No	
103	Turbine Generator Fabricator Notice to Contractor Turbine Generator Ready to Ship - Unit 2	Complete		5/28/2013		No	
104	Pressurizer Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3	Complete		3/28/2015		No	
105	Polar Crane - Shipment of Equipment to Site - Unit 2	12/31/2015	10/15/2015		-2 Month(s)	No	
106	Receive Unit 2 Reactor Vessel on site from fabricator	Complete		7/31/2013		No	
107	Set Unit 2 Reactor Vessel	8/9/2016	11/3/2016		+3 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
108	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Channel Head to Tubesheet Assembly Welding - Unit 3	Complete		4/24/2015		No	
109	Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 3	10/30/2015	12/31/2015		+2 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
110	Reactor Coolant Pump - Shipment of Equipment to Site (2 Reactor Coolant Pumps) - Unit 2	5/30/2016	6/30/2016		+1 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
111	Place first nuclear concrete for Unit 3	Complete		11/2/2013		No	
112	Set Unit 2 Steam Generator	10/10/2016	1/31/2017		+3 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
113	Main Transformers Ready to Ship - Unit 2	Complete		7/31/2013		No	
114	Complete Unit 3 Steam Generator Hydrotest at fabricator	Complete		8/21/2015		No	
115	Set Unit 2 Containment Vessel Bottom Head on basemat legs	Complete		5/22/2013		No	
116	Set Unit 2 Pressurizer Vessel	8/23/2016	3/14/2017		+7 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.

Legend  = Completed  = Completed this Quarter  = Movement in Days Only

South Carolina Electric & Gas Company

15-3Q

Appendix 1
VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	15-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
117	Reactor Coolant Pump Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 3	1/31/2017	1/31/2017		0	No	
118	Deliver Reactor Vessel Internals to Port of Export - Unit 3	12/31/2016	5/26/2017		+5 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
119	Main Transformers Fabricator Issue PO for Material - Unit 3	Complete		1/15/2015		No	
120	Complete welding of Unit 2 Passive Residual Heat Removal System piping	1/16/2017	4/18/2017		+3 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
121	Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 3	1/30/2016	3/28/2016		+2 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
122	Refueling Machine - Shipment of Equipment to Site - Unit 3	3/27/2016	4/5/2016		+1 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
123	Set Unit 2 Polar Crane	12/19/2016	6/7/2017		+6 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
124	Reactor Coolant Pumps - Shipment of Equipment to Site - Unit 3	4/30/2017	4/28/2017		0	No	
125	Main Transformers Ready to Ship - Unit 3	Complete		7/29/2015		No	
126	Spent Fuel Storage Rack - Shipment of Last Rack Module - Unit 3	Complete		9/3/2015		No	
127	Start electrical cable pulling in Unit 2 Auxiliary Building	11/29/2016	2/2/2017		+3 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
128	Complete Unit 2 Reactor Coolant System cold hydro	2/19/2018	7/30/2018		+5 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
129	Activate class 1E DC power in Unit 2 Auxiliary Building	6/22/2017	10/15/2017		+4 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.

Legend  = Completed  = Completed this Quarter  = Movement in Days Only

South Carolina Electric & Gas Company

Appendix 1
VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	15-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
130	Complete Unit 2 hot functional test	5/23/2018	10/30/2018		+5 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
131	Install Unit 3 ring 3 for containment vessel	2/27/2017	2/15/2017		0	No	
132	Load Unit 2 nuclear fuel	12/21/2018	6/2/2019		+6 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
133	Unit 2 Substantial Completion	6/19/2019	9/28/2019		+3 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
134	Set Unit 3 Reactor Vessel	5/26/2017	5/26/2017		0	No	
135	Set Unit 3 Steam Generator #2	9/22/2017	9/22/2017		0	No	
136	Set Unit 3 Pressurizer Vessel	11/27/2017	11/27/2017		0	No	
137	Complete welding of Unit 3 Passive Residual Heat Removal System piping	1/29/2018	1/23/2018		0	No	
138	Set Unit 3 polar crane	12/18/2017	12/18/2017		0	No	
139	Start Unit 3 Shield Building roof slab rebar placement	5/11/2018	7/9/2018		+2 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
140	Start Unit 3 Auxiliary Building electrical cable pulling	6/23/2017	10/4/2017		+4 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
141	Activate Unit 3 Auxiliary Building class 1E DC power	3/13/2018	4/10/2018		+1 Month(s)	No	Delay due to schedule refinement and schedule re-sequencing.
142	Complete Unit 3 Reactor Coolant System cold hydro	2/26/2019	2/26/2019		0	No	
143	Complete Unit 3 hot functional test	5/26/2019	5/26/2019		0	No	
144	Complete Unit 3 nuclear fuel load	12/19/2019	12/27/2019		0	No	
145	Begin Unit 3 full power operation	5/20/2020	5/20/2020		0	No	
146	Unit 3 Substantial Completion	6/16/2020	6/16/2020		0	No	

Legend  = Completed  = Completed this Quarter  = Movement in Days Only

South Carolina Electric & Gas Company

15-3Q

Appendix 1
VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661	Description	Order No. 2015-661	15-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
<div>SUMMARY</div> <div>Total Milestones Completed109out of146 = 75%</div> <div>Milestone Movement - Order No. 2015-661 vs. 15-3Q:</div> <div>a) Forward Movement23out of146 = 16%</div> <div>b) Backward Movement1out of146 = 1%</div> <div>Milestones Within +12 to +18 Month range0out of146 = 0%</div>								

South Carolina Electric & Gas Company

Legend  = Completed  = Completed this Quarter  = Movement in Days Only

APPENDIX 2**V. C. Summer Nuclear Station Units 2 & 3**

**Quarterly Report to the South Carolina Office of Regulatory Staff
Submitted by South Carolina Electric & Gas Company
Pursuant to Public Service Commission Order No. 2009-104(A)**

Quarter Ending September 30, 2015

Appendix 2 is an updated and expanded version of the information contained in the capital cost schedule approved by the Commission in Order No. 2015-661.

Appendix 2 shows:

1. The actual expenditures on the project by plant cost category through the current period.
2. The changes in capital costs reflecting the Company's current forecast of expenditures on the project for each future period by plant cost category. In updating its cost projections the Company has used the current construction schedule for the project and the Commission-approved inflation indices as set forth in **Appendix 4** to this report.
3. The cumulative CWIP for the project and the balance of CWIP that is not yet reflected in revised rates.
4. The current rate for calculating AFUDC computed as required under applicable FERC regulations.

The Cumulative Project Cash Flow target as approved in Order No. 2015-661 and as updated for escalation and other Commission-approved adjustments is found under the heading **"Per Order 2015-661 Adjusted."** The adjustments reflect:

1. Changes in inflation indices.
2. Budget Carry-Forward Adjustments used, where appropriate to track the effect of lower-than-expected cumulative costs on the future cumulative cash flow of the project.

Appendix 2 also shows the cumulative cash flow for the project based on actual expenditures to date and the current construction schedule and forecast of year-by-year costs going forward. This information is found under the heading **"Actual through September 2015 plus Projected."**

Appendix 2

PUBLIC VERSION

RESTATED and UPDATED CONSTRUCTION EXPENDITURES
(Thousands of \$)

V.C. Summer Units 2 and 3 - Summary of SCE&G Capital Cost Components

Per Order 2015-661 Adjusted	Total	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Annual Project Cash Flow(per order)	6,547,124	21,723	100,905	340,003	398,551	349,081	562,946	537,569	511,968	939,674	1,007,237	899,260	541,365	262,510	74,354
Capital Cost Rescheduling Contingency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Budget Carry-Forward Adjustment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net	6,547,124	21,723	100,905	340,003	398,551	349,081	562,946	537,569	511,968	939,674	1,007,237	899,260	541,365	262,510	74,354
Adjusted for Change in Escalation	6,534,947	21,723	100,905	340,003	398,551	349,081	562,946	537,569	511,968	954,288	997,845	888,588	538,176	262,368	74,958
Cumulative Project Cash Flow(Target)		21,723	122,629	462,632	861,183	1,210,244	1,773,190	2,310,759	2,822,725	3,777,013	4,774,858	5,661,446	6,197,622	6,459,988	6,534,947
Actual through September 2015* plus Projected															
Plant Cost Categories	Total	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Fixed with No Adjustment															
Firm with Fixed Adjustment A															
Firm with Fixed Adjustment B															
Firm with Indexed Adjustment															
Actual Crew Wages															
Non-Labor Costs															
Time & Materials															
Owners Costs															
Transmission Costs	329,512	-	26	724	927	11,984	51,677	56,593	46,439	57,564	61,430	41,158	1,010	-	-
Total Base Project Costs(2007 \$)	5,246,638	21,723	97,386	318,073	374,810	314,577	488,461	448,947	418,639	516,549	626,610	722,767	437,883	204,255	54,557
Total Project Escalation	1,328,466	-	3,519	20,930	23,741	34,084	74,485	88,622	93,328	137,891	256,500	254,433	178,116	115,756	47,064
Total Revised Project Cash Flow	6,575,104	21,723	100,905	340,003	398,551	349,081	562,946	537,569	511,965	654,440	1,083,111	977,199	615,999	320,010	101,621
Cumulative Project Cash Flow(Revised)		21,723	122,629	462,632	861,183	1,210,244	1,773,190	2,310,759	2,822,724	3,477,164	4,560,274	5,537,474	6,153,473	6,473,483	6,575,104
AFUDC(Capitalized Interest)	280,680	645	3,497	10,564	17,150	14,218	18,941	27,722	26,131	22,316	40,839	45,080	33,388	15,653	4,536
Gross Construction	6,855,784	22,368	104,403	350,567	415,701	363,278	581,886	565,291	538,096	678,757	1,123,950	1,022,279	649,387	335,664	106,157
Construction Work in Progress		22,368	126,771	477,338	893,039	1,256,317	1,838,203	2,403,495	2,941,590	3,618,347	4,742,297	5,764,576	6,413,963	6,749,627	6,855,784
CWIP Currency in Rates					3,214,067										
Sept 30, 2015 Actual Incremental CWIP Not Currency in Rates					135,081										

*Applicable Index escalation rates for 2015 are estimated. Escalation is subject to restatement when actual indices for 2015 are final.

Notes:

2018-2020 AFUDC rate applied

6.49%

The AFUDC rate applied is the current forecasted SCE&G rate. AFUDC rates can vary with changes in market interest rates, SCE&G's embedded cost of capital, capitalization ratios, construction work in process, and SCE&G's short-term debt outstanding.

These schedules do not reflect changes in costs or schedules associated with the 2015 EPC Contract Amendment which is discussed in Section 1.8 of the report and which will only become effective upon the future acquisition by WEC of shares in CB&I Stone and Webster.

APPENDIX 3**V. C. Summer Nuclear Station Units 2 & 3**

**Quarterly Report to the South Carolina Office of Regulatory Staff
Submitted by South Carolina Electric & Gas Company
Pursuant to Public Service Commission Order No. 2009-104(A)**

Quarter Ending September 30, 2015

For comparison purposes, **Appendix 3** provides the schedule of capital costs for the project which was approved by the Commission in Order No. 2015-661 as the Approved Capital Cost of the Units, pursuant to S.C. Code Ann. § 58-33-270(B)(2). **Appendix 3** also reflects the forecast of AFUDC expense based on these adjusted schedules and the AFUDC rates that were current at the time of Order No. 2015-661. **Appendix 3** is intended to provide a fixed point of reference for future revisions and updating. While the schedule of costs contained on **Appendix 3** is subject to revision for escalation, changes in AFUDC rates and amounts, capital cost scheduling contingencies and other contingency adjustments as authorized in Order No. 2009-104(A), no such adjustments have been made to the schedules presented here.

RESTATED and UPDATED CONSTRUCTION EXPENDITURES
(Thousands of \$)

V.C. Summer Units 2 and 3 - Summary of SCE&G Capital Cost Components

Per Order 2015-661

Plant Cost Categories
Fixed with No Adjustment
Firm with Fixed Adjustment A
Firm with Fixed Adjustment B
Firm with Indexed Adjustment
Actual Craft Wages
Non-Labor Costs
Time & Materials
Owners Costs
Transmission Costs

Total	Actual								Projected						
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
CONFIDENTIAL															
329,512	-	26	724	927	11,984	51,677	56,593	47,207	64,576	64,794	30,314	710	-	-	
5,246,638	21,723	97,386	319,073	374,810	314,977	488,461	448,947	422,076	742,980	759,311	658,948	389,817	169,840	38,289	
1,300,486	-	3,519	20,930	23,741	34,084	74,485	88,622	89,890	196,694	247,926	240,312	151,548	92,670	36,065	
6,547,124	21,723	100,905	340,003	398,551	349,061	562,946	537,569	511,966	939,674	1,007,237	899,260	641,365	282,510	74,354	
	21,723	122,629	462,632	861,183	1,210,244	1,773,190	2,310,759	2,822,725	3,762,398	4,769,635	5,668,895	6,210,280	6,472,770	6,547,124	
279,790	645	3,497	10,564	17,150	14,218	18,941	27,722	26,131	30,502	44,426	39,884	30,984	11,529	3,599	
	22,368	126,771	477,338	893,039	1,256,317	1,838,203	2,403,495	2,941,591	3,911,767	4,963,430	5,902,573	6,474,923	6,748,962	6,826,914	

APPENDIX 4

V. C. Summer Nuclear Station Units 2 & 3

**Quarterly Report to the South Carolina Office of Regulatory Staff
Submitted by South Carolina Electric & Gas Company
Pursuant to Public Service Commission Order No. 2009-104(A)**

Quarter Ending September 30, 2015

Appendix 4 shows the changes in the inflation indices approved in Order No. 2009-104(A). Included is a ten year history of the Handy-Whitman All Steam Index, South Atlantic Region; the Handy-Whitman All Steam and Nuclear Index, South Atlantic Region; the Handy-Whitman All Transmission Plant Index, South Atlantic Region; and the Chained GDP Index. The change in the relevant indices from the Combined Application is also provided.

Appendix 4, Chart A

Inflation Indices, Chart A

HW All Steam Generation Plant Index, January 2015

<u>Year</u>	<u>Index</u>	<u>Yr/Yr change</u>	<u>Three Year Average</u>	<u>Five Year Average</u>	<u>Ten Year Average</u>
2015	619	3.17%	2.28%	2.94%	4.08%
2014	600	-1.15%	2.73%	2.05%	4.62%
2013	607	4.84%	4.24%	3.25%	4.95%
2012	579	4.51%	2.19%	3.91%	4.71%
2011	554	3.36%	2.30%	4.73%	
2010	536	-1.29%	3.89%	5.21%	
2009	543	4.83%	7.19%	7.19%	
2008	518	8.14%	7.50%	6.65%	
2007	479	8.62%	7.66%	5.51%	
2006	441	5.76%	5.49%	4.17%	
2005	417	8.59%	4.39%		
2004	384	2.13%	2.17%		
2003	376	2.45%			
2002	367	1.94%			
2001	360				

HW All Steam Index:
One year
Five Year

BLRA Filing <u>Jul-07</u>	Order 2010-12 <u>Jan-09</u>	Order 2011-345 <u>Jul-10</u>	Order 2012-884 <u>Jan-12</u>	Order 2015-661 <u>Jul-14</u>	Update <u>Jan-15</u>
7.68%	4.83%	4.79%	4.51%	2.52%	3.17%
5.74%	7.19%	5.31%	3.91%	3.21%	2.94%

Appendix 4, Chart B

Inflation Indices, Chart B

HW All Steam and Nuclear Generation Plant Index, January 2015

<u>Year</u>	<u>Index</u>	<u>Yr/Yr change</u>	<u>Three Year Average</u>	<u>Five Year Average</u>	<u>Ten Year Average</u>
2015	619	3.17%	2.35%	2.95%	4.10%
2014	600	-1.32%	2.80%	2.09%	4.65%
2013	608	5.19%	4.29%	3.32%	4.99%
2012	578	4.52%	2.20%	3.87%	4.72%
2011	553	3.17%	2.30%	4.74%	
2010	536	-1.11%	3.89%	5.26%	
2009	542	4.84%	7.21%	7.20%	
2008	517	7.93%	7.52%	6.66%	
2007	479	8.86%	7.75%	5.57%	
2006	440	5.77%	5.51%	4.19%	
2005	416	8.62%	4.40%		
2004	383	2.13%	2.18%		
2003	375	2.46%			
2002	366	1.95%			
2001	359				

HW All Steam/Nuclear Index:

One year
Five Year

BLRA Filing Jul-07	Order 2010-12 Jan-09	Order 2011-345 Jul-10	Order 2012-884 Jan-12	Order 2015-661 Jul-14	Update Jan-15
7.69%	4.84%	4.60%	4.52%	2.52%	3.17%
5.75%	7.20%	5.32%	3.87%	3.21%	2.95%

Appendix 4, Chart C

Inflation Indices, Chart C

HW All Transmission Plant Index, January 2015

<u>Year</u>	<u>Index</u>	<u>Yr/Yr change</u>	<u>Three Year Average</u>	<u>Five Year Average</u>	<u>Ten Year Average</u>
2015	610	2.52%	1.82%	1.88%	3.81%
2014	595	-0.34%	1.81%	0.55%	4.57%
2013	597	3.29%	2.40%	2.10%	4.90%
2012	578	2.48%	-0.07%	3.00%	4.55%
2011	564	1.44%	1.57%	4.33%	
2010	556	-4.14%	3.68%	5.74%	
2009	580	7.41%	8.11%	8.60%	
2008	540	7.78%	8.48%	7.71%	
2007	501	9.15%	9.27%	6.10%	
2006	459	8.51%	7.21%	4.76%	
2005	423	10.16%	4.28%		
2004	384	2.95%	1.72%		
2003	373	-0.27%			
2002	374	2.47%			
2001	365				

HW All Transmission Plant Index

One year
Five Year

BLRA Filing Jul-07	Order 2010-12 Jan-09	Order 2011-345 Jul-10	Order 2012-884 Jan-12	Order 2015-661 Jul-14	Update Jan-15
8.82%	7.41%	5.08%	2.48%	1.68%	2.52%
6.86%	8.60%	5.23%	3.00%	2.63%	1.88%

Appendix 4

Inflation Indices, Chart D

GDP Chained Price Index, 2015

SERIES TYPE	UNIT	SHORT LABEL	ID	2009	2010	2011	2012	2013	2014	2015
Chained Price Index--Gross Domestic Product										
U.S. Macro - 10 Year Baseline	(2009=100)	Chained price Index-gross domestic product, Source: BEA, Units: Index- 2009=100.0	45158933	100.00	100.75	102.79	104.70	106.48	108.33	109.4
Annual Percent change					0.75%	2.02%	1.86%	1.70%	1.74%	0.99%
3-Year Annual Percent change							1.54%	1.86%	1.77%	1.48%
5-Year Annual Percent change									1.61%	1.66%
Consumer Price Index, All-Urban										
U.S. Macro - 10 Year Baseline	Index	Consumer price Index, all-urban, Source: BLS, Units: - 1982-84=1.00	45158182	2.15	2.17	2.23	2.29	2.32	2.36	2.36
Percent change					0.93%	2.76%	2.69%	1.31%	1.72%	0.00%
3-Year Annual Percent change							2.13%	2.26%	1.91%	1.01%
5-Year Annual Percent change									1.68%	1.70%
Producer Price Index--Finished Goods										
U.S. Macro - 10 Year Baseline	(1982=1.0)	Producer price Index-finished goods, Source: BLS, Units: Index- 1982=1.0	45159751	1.73	1.79	1.89	1.93	1.96	2.00	1.94
Percent change					3.47%	5.59%	2.12%	1.55%	2.04%	-3.00%
3-Year Annual Percent change							3.72%	3.09%	1.90%	0.20%
5-Year Annual Percent change									2.95%	1.66%

GDP Chained Price IndexOne year
Five Year

BLRA Filing Jul-07	Order 2010-12 Jan-09	Order 2011-345 Jul-10	Order 2012-884 Jan-12	Order 2015-661 Jul-14	Update Jul-15
2.86%	2.24%	0.43%	2.11%	1.65%	0.99%
2.81%	2.86%	1.97%	1.69%	1.55%	1.66%

APPENDIX 5

V. C. Summer Nuclear Station Units 2 & 3

**Quarterly Report to the South Carolina Office of Regulatory Staff
Submitted by South Carolina Electric & Gas Company
Pursuant to Public Service Commission Order No. 2009-104(A)**

Quarter Ending September 30, 2015

Appendix 5 indicates those LARs that have been submitted by SCE&G to the NRC for review. Included is the title of each LAR, a brief description of the change(s) associated with the LAR, the date the LAR was submitted to the NRC, and the status of the requests.

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 12-01 - Additional Electrical Penetration Assemblies	Provide additional penetrations of the Containment Vessel to allow sufficient space for electrical and instrument cables.	8/29/2012	Approved on 7/1/2013
LAR-12-02 – Tier 1 Table 3.3-1 Discrepancies – PAR Utilized	Conform the current ITAAC standards used to verify the shield building wall thickness to align with those approved in DCD Rev. 19.	9/26/2012	Approved on 5/30/2013
LAR 13-01 - Basemat Shear Reinforcement Design Spacing Requirements - PAR Utilized	Clarify the provisions for maximum spacing of the shear reinforcement in the basemat below the auxiliary building to be consistent with requirements shown in existing FSAR figures.	1/15/2013	Approved on 2/26/2013
LAR 13-02 - Basemat Shear Reinforcement Design Details - PAR Utilized	Revises the requirements for development of basemat shear reinforcement in the licensing basis from ACI 349 Appendix B to ACI 318-11, Section 12.6. The use of ACI 318 criteria for headed reinforcement results in longer shear ties and thicker concrete in areas below the elevator pits and a sump in the nuclear island basemat.	1/18/2013	Approved on 3/1/2013
LAR 13-03 - Turbine Building Eccentric and Concentric Bracing	Revises the turbine building main area to use a mixed bracing system using eccentrically and concentrically braced frames as a means of preventing the turbine building from collapsing onto the Nuclear Island (NI) during a seismic event. The structural design code is also changed to a code that includes adequate provisions for the new bracing system.	2/7/2013	Approved on 7/1/2013
LAR 13-04 - Reconciliation of Tier 1 Valve Differences	Reconciles valve related information contained in Tier 1 material to be consistent with corresponding Tier 2 material currently incorporated in the UFSAR.	2/7/2013	Approved on 9/3/2015

The gaps in LAR number sequencing are due to the order of submittal to the NRC.

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 13-05 - Structural Modules Shear Stud Size and Spacing	Revises Note 2 of UFSAR Figure 3.8.3-8, Sheet 1, which presents typical structural wall module details. This information needs to be changed to be consistent with the design basis calculations.	2/14/2013	Approved on 5/23/2013
LAR 13-06 - Primary Sampling System Changes	Alters the design of the Primary Sampling System (PSS) by replacing a check valve with a solenoid-operated gate valve, modifying the PSS inside-containment header and adding a PSS containment penetration.	2/7/2013	Approved on 8/22/2013
LAR 13-07 - Changes to the Chemical and Volume Control System (CVS)	Alters the design of the Chemical and Volume Control System (CVS) by adding/changing valves, separating the zinc and hydrogen injection paths and relocating the zinc injection point.	3/13/2013	Approved on 2/24/2014
LAR 13-08 - Module Obstructions and Details	Withdrawn after review with NRC-see Letter NND-13-202. <i>Superseded by LAR 13-20.</i>	2/28/2013	Withdrawn
LAR 13-09 - Annex/Radwaste Building Layout Changes	Updates column line numbers on Annex Building Figures and changes the configuration of the Radwaste building by adding three bunkers for storage and merging two rooms.	2/27/2014	Under NRC Review
LAR 13-10 - Human Factors Engineering Integrated System Validation Plan	Revises referenced document APP-OCS-GEH-320 from Revision D to Revision 2.	3/13/2013	Approved on 7/31/2014
LAR 13-11 - NI Wall Reinforcement Criteria -PAR Utilized	Revises structural code criteria for anchoring reinforcement bar within the NI walls (adopts ACI-318 for this purpose).	3/26/2013	Approved on 6/6/2013

The gaps in LAR number sequencing are due to the order of submittal to the NRC.

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 13-12 - Fire Area Boundary Changes	Revises various information to support fire area boundaries (HVAC information, stairwell changes, and other layout changes).	7/17/2013	Approved on 9/9/2014
LAR 13-13 - Turbine Building Layout Changes	Revises the door location, clarifies column line designations, changes floor to ceiling heights and increases elevations and wall thickness in certain areas.	7/30/2013	Approved on 5/12/2014
LAR 13-14 - Turbine Building Battery Room and Electrical Changes	Revises the Non-Class 1E dc and Uninterruptible Power Supply System (EDS) and Class 1E dc and Uninterruptible Power Supply System (IDS) by: (1) Increasing EDS total equipment capacity, component ratings, and protective device sizing to support increased load demand, (2) Relocating equipment and moving Turbine Building (TB) first bay EDS Battery Room and Charger Room. The floor elevation increases from elevation 148'-0" to elevation 148'-10" to accommodate associated equipment cabling with this activity, and (3) Removing the Class 1E IDS Battery Back-up tie to the Non-Class 1E EDS Battery.	10/2/2013	Approved on 10/24/2014
LAR 13-15 - Operator Break Room Configuration	No description provided. This is no longer a LAR.	Changed to a Non-LAR Departure	
LAR 13-16 - Revision to Human Factors Engineering Design Verification Plan (GEH-120)	Revises referenced document APP-OCS-GEH-120 from Revision B to Revision 1.	9/25/2013	Approved on 7/31/2014

The gaps in LAR number sequencing are due to the order of submittal to the NRC.

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 13-17 - Revision to Human Factors Engineering Task Support Verification (GEH-220)	Revises referenced document APP-OCS-GEH-220 from Revision B to Revision 1.	9/25/2013	Approved on 7/31/2014
LAR 13-18 - Revision to Human Factors Engineering Issue Resolution Plan	Revises APP-OCS-GEH-420 to make a number of changes in order to refine the process for capturing and resolving Human Engineering Discrepancies (HEDs) from that process document as described in Revision B.	10/3/2013	Approved on 7/31/2014
LAR 13-19 - Revision to Human Factors Engineering Plan	Revises APP-OCS-GEH-520 to make a number of changes in order to confirm aspects of the HSI and OCS design features that could not be evaluated in other Human Factors Engineering (HFE) V&V activities.	10/3/2013	Approved on 7/31/2014
LAR 13-20 - Modules / Stud Channel Obstructions Revision	Revises requirements for design spacing of shear studs and wall module trusses and the design of structural elements of the trusses such as angles and channels. These revisions are to address interferences and obstructions.	7/17/2013	Approved on 11/19/2013
LAR 13-21 - CA03 Module Design Differences	Corrects inconsistencies between Tier 2* and Tier 2 information.	2/2/2014	Approved on 4/17/2015
LAR 13-22 - Annex Building Structure and Layout Changes	The proposed changes would revise the Combined Licenses (COLs) by (a) installing an additional nonsafety-related battery, (b) revising the annex building internal configuration by converting a shift turnover room to a battery room, adding an additional battery equipment room, and moving a fire area wall, (c) increasing the height of a room, and (d) increasing certain floor thicknesses. The proposed changes include reconfiguring existing rooms and related room, wall, and access path changes.	12/4/2014	Under NRC Review

The gaps in LAR number sequencing are due to the order of submittal to the NRC.

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 13-23 - Reinforced Concrete (RC) to Steel Plate Composite Construction (SC) Connections	The proposed amendment would revise Tier 2* and associated Tier 2 material related to the design details of connections in several locations between the steel plate composite construction (SC) used for the shield building and the standard reinforced concrete (RC) walls, floors, and roofs of the auxiliary building and lower walls of the shield building.	7/11/2014	Approved on 12/16/2014
LAR 13-25 - Tier 1 Editorial and Consistency Changes	Revises information to correct consistency and editorial issues. This submittal does not contain any technical changes.	7/2/2013	Approved on 7/31/2014
LAR 13-26 - EP Rule Changes	Revision to the Emergency Plan in order to comply with regulatory changes enacted by the Nuclear Regulatory Commission (NRC) in the Final Rule. These changes include the addition of text that 1) clarifies the distance of the Emergency Operations Facility (EOF) from the site, 2) updates the content of exercise scenarios to be performed at least once each exercise cycle, and 3) requires the Evacuation Time Estimate (ETE) to be updated annually between decennial censuses.	12/17/2013	Approved on 6/20/2014
LAR 13-27 - Control Rod Drive Mechanism Latching Relays	The proposed change would revise Combined License (COL) numbers NPF-93 and NPF-94 for Virgil C. Summer Nuclear Station, Units 2 & 3, respectively, to specify the use of Control Rod Drive Mechanism (CRDM) latching control relays (referred to as control relays herein) in lieu of field breakers to open the CRDM motor generator (MG) set generator field on a diverse actuation system (DAS) signal.	10/30/2014	Approved on 6/10/2015

The gaps in LAR number sequencing are due to the order of submittal to the NRC.

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 13-28 - Piping Line Number Additions, Deletions, and Functional Capability Re-designation	The proposed changes revise the Combined License (COL) in regard to changes to the Automatic Depressurization System (ADS), the Passive Containment Cooling System (PCS), the Passive Core Cooling System (PXS), the Normal Residual Heat Removal System (RNS), the Containment Air Filtration System (VFS), Spent Fuel Pool Cooling System (SFS) and the Sanitary Discharge System (SDS) piping line numbers to reflect the as-designed configuration resulting from changes in piping layout or rerouting. The changes consist of adding or deleting piping line numbers of existing piping lines, or updating the functional capability classification of existing process flow lines for the tables.	12/18/2014	Under NRC Review
LAR 13-29 - Class 1E DC and Uninterruptible Power Supply System Removal of Spare Battery Termination Boxes	The proposed changes revise COLs concerning the Class 1E dc and Uninterruptible Power Supply System (IDS). The proposed changes replace four Spare Termination Boxes (IDSS-DF-2, IDSS-DF-3, IDSS-DF-4, and IDSS-DF-5) with a single Spare Battery Termination Box (IDSS-DF-3), and make minor raceway and cable routing changes.	12/19/2014	Under NRC Review
LAR 13-32 - WLS Changes	Clarifies the description of the WLS, including changing depiction of valves to be consistent with Tier 1 figure conventions, ensuring consistency between Tier 1 and Tier 2 descriptions, and clarifying the safety classification of the drain hubs.	8/30/2013	Approved on 1/8/2014

The gaps in LAR number sequencing are due to the order of submittal to the NRC.

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 13-33 - Passive Core Cooling System (PXS) Condensate Return	The proposed amendment would revise the plant-specific Tier 1 and associated Tier 2 material to increase the efficiency of the return of condensate utilized by the passive core cooling system (PXS) to the in-containment refueling water storage tank (IRWST) to support the capability for long term cooling.	7/8/2014	Under NRC Review
LAR 13-34 - Clarification of Tier 2* Material in HFE Documents	The proposed changes reclassify portions of the five Tier 2* Human Factors (HF) Verification & Validation (V&V) planning documents listed in Updated Final Safety Analysis Report (UFSAR) Table 1.6-1 and Chapter 18, Section 18.11.2.	3/19/2014	Approved on 10/8/2014
LAR 13-36 - CIM / DAS Diversity Clarification	The requested amendment proposed to depart from approved AP1000 Design Control Document (DCD) Tier 2* information as incorporated into the Updated Final Safety Analysis Report (UFSAR) by clarifying the position on design diversity, specifically human diversity, as related to the Component Interface Module (CIM) and Diverse Actuation System (DAS) design.	9/11/2014	Approved on 7/17/2015
LAR 13-37 - VCSNS Units 2 & 3 Tech Spec Upgrade	Revises Technical Specifications to closer align with the guidance of the Technical Specifications Task Force (TSTF) Writer's Guide for Plant-Specific Improved Technical Specifications, TSTF-GG-05-01, Revision 1, and with NUREG-1431, Standard Technical Specifications - Westinghouse Plants as updated by NRC approved generic changes.	12/4/2013	Approved on 11/12/2014

The gaps in LAR number sequencing are due to the order of submittal to the NRC.

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 13-38 - ACI Code Compliance with Critical Sections Higher Elevations	Withdrawn after review with NRC-see Letter NND-13-0745.	11/7/2013	Withdrawn
LAR 13-39 - EPZ Expansion LAR	This amendment proposes a change to the VCSNS Units 2&3 Radiation Emergency Plan (Plan). VCSNS proposes the following changes to the Units 2&3 Plan: expansion of the Emergency Planning Zone (EPZ) boundary, and revisions to the Evacuation Time Estimates (ETE) analysis and the Alert and Notification System (ANS) design reports to encompass the expanded EPZ boundary.	5/18/2015	Under NRC Review
LAR 13-41 - Coating Thermal Conductivity	Revises Design Control Document (DCD) Tier 2 information as incorporated into the Updated Final Safety Analysis Report (UFSAR) to allow use of a new methodology to determine the effective thermal conductivity resulting from oxidation of the inorganic zinc (IOZ) used in the containment vessel coating system.	11/26/2013	Under NRC Review
LAR 13-42 - Tier 1 Editorial and Consistency Changes #2	Allows various changes to correct editorial errors in Tier 1 and promote consistency with the Updated Final Safety Analysis Report (Tier 2 information).	5/20/2014	Approved on 3/10/2015
LAR 14-01 - Auxiliary Building Roof and Floor Details	Departs from VCSNS Units 2 and 3 plant-specific Design Control Document (DCD) Tier 2* material contained within the Updated Final Safety Analysis Report (UFSAR) to identify design details of the floors of the auxiliary building that may vary due to design and loading conditions, in accordance with code requirements.	4/3/2014	Approved on 7/18/2014

The gaps in LAR number sequencing are due to the order of submittal to the NRC

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 14-03 - Tier 2* Editorial and Clarification Changes	Departs from VCSNS Units 2 and 3 plant-specific Design Control Document (DCD) Tier 2* material contained within the Updated Final Safety Analysis Report (UFSAR) by making editorial and consistency corrections.	6/12/2014	Under NRC Review
LAR 14-05 - Containment Internal Structural Module Design Details	The requested amendment proposes to depart from Tier 2* information in the Updated Final Safety Analysis Report (UFSAR), plant-specific Tier 1 and corresponding COL Appendix C information, and involved UFSAR Tier 2 information to address changes in the UFSAR and design documents related to containment internal structural wall module design details.	7/17/2014	Approved on 3/12/2015
LAR 14-06 - Enclosures for Class 1E Electrical Penetrations in Middle Annulus	Departs from VCSNS Units 2 and 3 plant-specific Design Control Document (DCD) Tier 2* material contained within the Updated Final Safety Analysis Report (UFSAR) by eliminating the Division A fire zone enclosure and adding three new fire zones for Divisions B, C, and D Class 1 E electrical penetration rooms.	6/20/2014	Approved on 12/30/2014
LAR 14-07 - CA04 Structural Module ITAAC Dimensions Change	The proposed amendment would allow changes to adjust the concrete wall thickness tolerances of four Nuclear Island walls found in Tier 1.	9/25/2014	Approved on 8/24/2015

The gaps in LAR number sequencing are due to the order of submittal to the NRC.

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 14-08 - Integrated Test Program (ITP)	The requested amendment requires changes to the Updated Final Safety Analysis Report (UFSAR) in the form of departures from the incorporated plant-specific Design Control Document (DCD) Tier 2 information, and involves changes to related plant-specific Tier 1 information with corresponding changes to the associated COL information. Many of the changes in this amendment request are done in order to conform to the Tier 1 Section 3.4 exemption request described in Enclosure 2. In that change, construction and installation testing is removed from the ITP and replaced with component testing.	10/23/2014	Approved on 9/9/2015
LAR 14-09 - Turbine Building Switchgear Room and Office Layout Changes	The requested amendment would depart from VCSNS Units 2 and 3 plant-specific Design Control Document (DCD) Tier 2* material contained within the Updated Final Safety Analysis Report (UFSAR) by relocating fire area rated fire barriers due to changes to the layout of the switchgear rooms and office area in the turbine building. The requested amendment would also depart from plant-specific DCD Tier 2 material that involves the proposed Tier 2* departures.	9/18/2014	Under NRC Review
LAR 14-10 - Addition of Instruments to Design Reliability Assurance Program (D-RAP)	This license amendment request proposes to modify the existing feedwater controller logic to allow the controller program to respond as required to various plant transients while minimizing the potential for false actuation. The current configuration of the feedwater control system allows the startup feedwater (SFW) pumps to start upon initiation of a reactor trip. This proposed change will align the feedwater controller logic with the guidance in the Advanced Light Water Reactor Utility Requirements Document (ALWR URD).	7/6/2015	Under NRC Review

The gaps in LAR number sequencing are due to the order of submittal to the NRC.

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 14-15 - Compressed and Instrument Air Supply Modification	The proposed change would revise the Combined Licenses (COLs) in regard to removing a supply line from the Compressed and Instrument Air System (CAS) to the generator breaker package and involves changes to related plant-specific Tier 1 information, with corresponding changes to associated COL Appendix C information.	10/30/2014	Under NRC Review
LAR 14-16 - Condensate Water Storage Tank Volume	No description provided. This is no longer a LAR.	Changed to a Non-LAR Departure	
LAR 14-18 - Containment Hydrogen Igniter Changes	The proposed departures consist of changes to plant-specific Tier 1 (and COL Appendix C) tables and UFSAR tables, text, and figures related to the addition of two hydrogen igniters above the In-Containment Refueling Water Storage Tank (IRWST) roof vents to improve hydrogen burn capabilities, incorporating consistency changes to a plant-specific Tier 1 table to clarify the minimum surface temperature of the hydrogen igniters and igniter location, removal of hydrogen igniters from the Protection and Safety Monitoring System (PMS) from a plant-specific Tier 1 table, and clarification of hydrogen igniter controls in a Tier 1 table.	5/6/2015	Under NRC Review
LAR 14-19 - HFE OSA Task Update and Removal of WCAP-15847	Tier 2* document WCAP-15847 identifies documents that were used to support the AP1000 Design Certification. These documents have either been superseded or discontinued. Therefore, an amendment is being proposed to implement the necessary Tier 2* changes to delete WCAP-15847 from the UFSAR. In addition to this change, a Human Factors Engineering (HFE) Operational Sequence Analysis (OSA) task related to the Automatic Depressurization System (ADS) needs to be clarified.	1/27/2015	Approved on 6/2/2015

The gaps in LAR number sequencing are due to the order of submittal to the NRC.

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 15-01 - HFE V&V Plan Updates to Support ISV	The proposed changes will resolve inconsistencies and implement changes identified during the review of Human Factors (HF) Verification and Validation (V&V) plans. These changes involve revising Tier 2* information contained within the Human Factors Engineering (HFE) Design Verification, Task Support Verification and Integrated System Validation (ISV) plans.	2/10/2015	Approved on 9/23/2015
LAR 15-03 - Main Control Room Emergency Habitability System (VES) Design Changes	The proposed changes revise the COLs concerning the design details of the Main Control Room Emergency Habitability System (VES). These proposed changes would revise ASME safety classification and transition location, equipment orientation and removal, and identification of the number of emergency air storage tanks.	6/30/2015	Under NRC Review
LAR 15-07 - Reclassification of Tier 2* Information on Fire Area Figures	The requested amendment and exemption identify portions of the licensing basis that would more appropriately be classified as Tier 2, specifically the Tier 2* information on Fire Area Figures 9A-1, 9A-2, 9A-3, 9A-4, 9A-5, and 9A-201 in the VCSNS 2 and 3 Updated Final Safety Analysis Report.	5/4/2015	Under NRC Review
LAR 15-08 - Supplemental Requirements for Mechanical Coupler Weld Acceptability	The proposed change is that, using the AISC N690-1994 SLC of 1.6, rebar sizes #4, #5, and #6 C2/C3J couplers demonstrate the required weld capacity through analysis. For rebar sizes #7 through #11 C2/C3J couplers, this activity proposes testing as permitted by AISC N690-1994 Section Q1.22.2 to demonstrate the weld capacity for 125% of the specified yield strength loading of the rebar by performing a series of a minimum of six static and three cyclic tests on representative samples of each of the five sizes of the coupler-rebar- weld system.	8/24/2015	Under NRC Review

The gaps in LAR number sequencing are due to the order of submittal to the NRC.

V.C. Summer Units 2 and 3 License Amendment Requests (LARs)

Topic	Description of Change	Submittal Date	Status
LAR 15-09 - Use of AWS D1.1-2000 Criteria for Structural Welds	The requested amendment proposes to depart from Tier 2* and associated Tier 2 information in the Updated Final Safety Analysis Report (UFSAR) (which includes the plant-specific DCD Tier 2 information) to revise the application of American Institute for Steel Construction (AISC) N690-1994, Specification for the Design, Fabrication and Erection of Steel Safety-Related Structures for Nuclear Facilities, to allow use of American Welding Society (AWS) D1.1-2000, Structural Welding Code-Steel, in lieu of the AWS D1.1-1992 edition identified in AISC N690-1994.	5/26/2015	Approved on 9/1/2015
LAR 15-17 - Addition of New Turbine Building Sump Pumps to ITAAC	The proposed amendment would depart from plant-specific Tier 1 information by adding two turbine building sump pumps to accommodate the increased flow that will be experienced during condensate polishing system rinsing operations. The proposed change also indicates that there is more than one main turbine building sump. Because flow into the turbine building sumps may be radiologically contaminated, the turbine building sump pumps will cease operation if a high radiation signal is present.	9/30/2015	Under NRC Review

The gaps in LAR number sequencing are due to the order of submittal to the NRC.